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AERODYNAMICS NOTE 369

(6) TRANSONIC WIND TUNNEL TESTS ON THE JINDIVIK 203B TARGET AIRCRAFT

(10) B. D. FAIRLIE

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TRANSONIC WIND TUNNEL TESTS ON THE JINDIVIK 203B TARGET AIRCRAFT

by

B. D. FAIRLIE

SUMMARY

Transonic wind tunnel tests are reported for a 1/20th scale model of the Jindivik 203B target aircraft. Configurations tested include the basic aircraft with and without fin and tail plane, and various combinations of Tonic towed targets on their mounting beams. The tests cover the Mach number range from 0·5 to 0·92 for angles of incidence in the range −3° to 7° and angles of sideslip from 0° to 4°. The results indicate that the aircraft is statically stable in both longitudinal and lateral planes for all configurations tested. The major effects of the addition of the Tonic towed targets is a small decrease in lift and a small increase in drag.

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16. *ABSTRACT*

Transonic wind tunnel tests are reported for a 1/20th scale model of the Jindivik 203B target aircraft. Configurations tested include the basic aircraft with and without fin and tail plane, and various combinations of Tonic towed targets on their mounting beams. The tests cover the Mach number range from 0·5 to 0·92 for angles of incidence in the range −3° to 7° and angles of sideslip from 0° to 4°. The results indicate that the aircraft is statically stable in both longitudinal and lateral planes for all configurations tested. The major effects of the addition of the Tonic towed targets is a small decrease in lift and a small increase in drag.

NOTATION

b Model nominal wingspan = 11·40 in (289·56 mm)

C_C Cross wind force coefficient = Cross wind force/$\frac{1}{2}\rho v^2 S$

C_D Drag force coefficient = Drag force/$\frac{1}{2}\rho v^2 S$

C_L Lift force coefficient = Lift force/$\frac{1}{2}\rho v^2 S$

C_X Axial force coefficient = Axial force/$\frac{1}{2}\rho v^2 S$

C_{XB} Base force coefficient = $(p_B - p)S_B/\frac{1}{2}\rho v^2 S$

C_Y Side force coefficient = Side force/$\frac{1}{2}\rho v^2 S$

C_Z Normal force coefficient = Normal force/$\frac{1}{2}\rho v^2 S$

C_l Rolling moment coefficient = Rolling moment/$\frac{1}{2}\rho v^2 Sb$

C_m Pitching moment coefficient = Pitching moment/$\frac{1}{2}\rho v^2 Sc$

C_n Yawing moment coefficient = Yawing moment/$\frac{1}{2}\rho v^2 Sb$

c Model wingchord = 2·40 in. (60·96 mm)

l_v Effective dihedral = $(\partial C_l/\partial\beta)\ \alpha$, m = const.

M Free stream Mach number

n_v Weathercock stability derivative = $(\partial C_n/\partial\beta)\ \alpha$, m = const.

p Free stream static pressure

p_B Model base pressure

R Reynolds number based on model wing chord.

S Model nominal wing area = 27·36 in² (17651 mm²)

S_B Model base area = 0·83 in² (535·5 mm²)

v Free stream velocity

α Angle of incidence: the angle between the wind vector and its projection in the chordal plane.

α_1 Alternative angle of incidence: the angle between the model axis and the projection of the wind vector on the model plane of symmetry.

β Angle of sideslip: the angle between the wind vector and its projection on the model plane of symmetry.

η Elevator angle with respect to tail plane chord.

η_T Tailplane angle with respect to fuselage reference line.

ρ Free stream density.

φ Model roll angle.

Notes:

(i) See Figure 1 for sign conventions for forces and moments and attitude angles.

(ii) The nominal aircraft centre of gravity was taken to be located at 0·2 c and 0·1125 in. (2·8575 mm) (model scale) below the fuselage reference line.

(iii) Since the full scale aircraft and the model were both manufactured before the introduction of *SI* units, all dimensions have been expressed in feet and inches, with the equivalent *SI* unit following in brackets where appropriate.

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1. INTRODUCTION

During the period 1956 to 1965, a considerable number of tests on various aspects of the Jindivik target aircraft were conducted in the transonic tunnel of the Aeronautical Research Laboratories[1–9]. Prior to 1961 these tests were conducted on a half model of the Jindivik Mk.IIA and were necessarily limited to the longitudinal characteristics of the aircraft.

Trials of the Mk.IIB and Mk.III versions highlighted the lack of lateral stability information at high Mach numbers and a 1/20th scale complete model aircraft together with a five component strain gauge balance (no axial force component) were manufactured during 1960. A new three component (normal and axial forces and pitching moment) strain gauge balance was later manufactured to suit this model.

Together, these tests provided adequate test information on the high speed performance of the Jindivik aircraft. However, between 1965 and 1976, considerable changes had been made to the basic Jindivik aircraft configuration, its control surface settings, and the payloads carried. Since the Government Aircraft Factories were considering modifications to the aircraft, it was decided to update the existing 1/20th scale complete model to the configuration as used in Mk 203B and to conduct transonic wind tunnel tests covering its high speed flight envelope. The present note reports this test programme, conducted during November 1976.

2. TEST DETAILS

2.1 Model

The model used for these tests was a 1/20th scale complete model of the Jindivik target aircraft. The existing model was modified to reflect the present full scale aircraft configuration (Mk 203B)—see Figure 2 and Table 1. This involved the manufacture of a new fin and tailplane unit including the acquisition lamp fairing on the top of the fin, the addition of fins to the Mk7 fuel pods, and the alteration of flap and aileron settings. In addition several excrescences on the full scale aircraft were added to the model to obtain a better representation of the aircraft's aerodynamic characteristics. These included the wing acquisition lights and their fairings, radio altimeter fairings, wave guide fairings, and the fuselage skid beam in its stowed position.

At the request of Government Aircraft Factories, two Tonic towed targets with attachment beams were also manufactured. The Tonics and their beams were made individually detachable to enable tests to be conducted with and without one or both of the Tonics or their attachment beams.

The following five configurations of the aircraft were tested.

(i) Configuration A.—representing the clean aircraft configuration consisting of short (no extensions) wings with twisted flaps at a nominal setting of $+1^\circ$ (actual settings $+2^\circ$ inboard and 0° outboard), both ailerons set at 0°, MK 8 wing pods with fins, fin and tail-plane fitted with $\eta_T = -\frac{1}{2}^\circ$ and $\eta = 0^\circ$, skid beam, radio altimeter fairings, wave guide fairings and acquisition lamps and fairings. The intake duct was sealed. Neither the Tonic towed targets nor their attachment beams were in place.

(ii) Configuration B—as for configuration A but with the tailplane and fin assembly removed and replaced with a blanking piece.

(iii) Configuration C—as for configuration A but with both Tonic towed targets mounted on their mounting beams.

(iv) Configuration D—as for configuration C but with only the port side Tonic towed target mounted on its beam. (both mounting beams remaining in place.)

(v) Configuration E—as for configuration C but with both Tonic towed targets removed from their mounting beams.

A drawing of the complete model in configuration C is shown in Figure 2 and photographs

showing the sting mounted model in each of configurations A, B and C are shown in Figures 3, 4 and 5.

Owing to the low Reynolds number of the tests (approximately $0{\cdot}45 \times 10^6$) boundary layer transition was fixed an all windswept surfaces by bands of distributed roughness. These roughness bands were placed on the upper and lower surfaces of the wing, tailplane, fin, fuselage, pods and pod fins and consisted of approximately 3 mm wide bands made up of particles $0{\cdot}15$ mm diameter with a coverage of 10–20%.

2.2 Wind Tunnel

The tests were conducted in the transonic wind tunnel of these laboratories. The nominal dimensions of the tunnel test section are $0{\cdot}81$ m by $0{\cdot}53$ m. For these tests, all test section walls were longitudinally slotted (Fig. 6) with an open area ratio at the model location of $10{\cdot}5\%$.

The maximum frontal cross-sectional area of the model at zero incidence was $5{\cdot}36$ in^2 (3458 mm^2) giving a blockage ratio of $0{\cdot}81\%$. Since the range of incidence of the tests was limited, no tunnel interference corrections were applied to the results.

Mach number and dynamic pressure were derived from measurements of the static pressure in the plenum chamber surrounding the test section and of the static pressure in the contraction entry, assuming these to be the static and total pressures respectively of the test section flow.

2.3 Test Programme

Six component force and moment coefficients were measured for all five configurations over an incidence range $-3^\circ \leqslant \alpha \leqslant 7^\circ$ (at zero sideslip) and a sideslip range $0^\circ \leqslant \beta \leqslant 4^\circ$ (at zero incidence). Model attitude was corrected for sting and balance deflections under load. The Mach number range was $0{\cdot}5 \leqslant M \leqslant 0{\cdot}92$ in twelve steps for configurations A and C and $0{\cdot}5 \leqslant M \leqslant 0{\cdot}9$ in six steps for configurations B, D and E.

For all tests, the Reynolds number was kept approximately constant at $0{\cdot}45 \pm 0{\cdot}02 \times 10^6$ by varying the tunnel starting pressure. This Reynolds number was the maximum attainable at the highest test Mach number ($0{\cdot}92$). To investigate any possible gross effects of Reynolds number, an additional run was conducted for each configuration at the highest Reynolds number attainable at a Mach number of $0{\cdot}5$ ($R \approx 0{\cdot}63 \times 10^6$).

3. RESULTS AND DISCUSSION

3.1 Basic Aircraft

Figures 7(*a*) and 7(*b*) show the variation of lift coefficient (C_L) with incidence at constant Mach number for the two configurations (A and B) of the basic aircraft with and without tailplane. Stalling of the aircraft is evident at Mach numbers less than $0{\cdot}88$ from an angle of incidence of approximately 5° to 6°, when the lift coefficient has reached a value of about $0{\cdot}7$. The variation of lift curve slopes ($\partial C_L/\partial\alpha$) with Mach number are shown in Figures 8(*a*) and 8(*b*) for values of lift coefficient of 0, $0{\cdot}2$ and $0{\cdot}4$.

The variation, at fixed Mach numbers, of pitching moment (C_m) with lift coefficient (C_L) for the clean aircraft without fin and tailplane is plotted in Figure 9. It is interesting to note that there is some evidence of the pitching moment "loop" found in previous tests[5] at Mach numbers around $0{\cdot}8$. All signs of this loop are removed by the addition of the tailplane (Figs 10(*a*) and 10(*b*)) but the severe nose down moment, which occurs above $C_L = 0{\cdot}65$ for Mach numbers below $0{\cdot}86$, persists and must determine the trim boundary of the aircraft. The variation of pitching moment (C_m) with Mach number at constant values of lift coefficient of 0, $0{\cdot}2$, and $0{\cdot}4$ is shown in Figures 11(*a*) and 11(*b*).

The variation of drag coefficient (C_D) with lift coefficient (C_L) for configurations A and B is shown in Figures 12(*a*) and 12(*b*). The drag coefficients plotted have been corrected for base drag referred to free stream static pressure and based on a reference area of the total fuselage area at a point $13{\cdot}168$ in. aft of the aircraft nose (station $263{\cdot}35$ in. full scale)—the most aft position where the fuselage retains a full perimeter. Since the tests were conducted on a model of such small scale, giving rise to a Reynolds number well below flight values and difficulties

in accurately representing the full scale aircraft (e.g. no flow through the intake duet, sting interference etc.), accurate measurement of absolute drag values becomes almost impossible. (The effect of an increase in Reynolds number from $0{\cdot}45$ to $0{\cdot}63 \times 10^6$ for configuration A may be seen in Figure 12(*a*) where it gives rise to a drag decrement of $0{\cdot}004$.) However, the present drag values remain useful in as much as they provide a basis of comparison for investigating the drag increments due to the addition of externally carried equipment or to any future change in aircraft configuration. The variation of drag coefficient (C_D) with Mach number for values of lift coefficient (C_L) of 0, $0{\cdot}2$, and $0{\cdot}4$ is given in Figure 13. It may be seen that the compressibility drag rise boundary occurs at a Mach number of about $0{\cdot}82$.

The variation of yawing moment coefficient (C_n) with angle of sideslip (β) at constant Mach number for the aircraft without fin an tailplane (configuration B) is shown in Figure 14. For this figure, as for all the lateral data, the data is for $\alpha = 0°$. Throughout the test incidence range no significant variation of any lateral coefficient with incidence was found. The addition of the fin and tailplane produces a stable yawing moment curve (Figs 15(*a*) and 15(*b*)). The range of sideslip angle tested was not sufficient to show any evidence of fin stalling such as was apparent in previous tests for Mach numbers above $0{\cdot}81$ and sideslip angle of greater than 7°. The weathercock stability derivative (η_v) is plotted against Mach number in Figure 16. Once again it is evident that the addition of the fin produces a satisfactory margin of stability throughout the tested range of Mach number.

Side force coefficient (C_Y) variation with angle of sideslip (β) at constant Mach number is given in Figure 17 for the aircraft without fin or tailplane and in Figures 18(*a*) and 18(*b*) with the fin and tailplane in place.

Figure 19 shows the variation of rolling moment coefficient (C_l) with angle of sideslip (β) for the aircraft without fin or tail plane. It will be noted that some form of asymmetry in the model has given rise to a positive residual rolling moment at $\beta = 0°$. The slightly positive slope of this curve is converted to a negative one with the addition of the fin and tailplane (Figs 20(*a*) and 20(*b*)) giving a stable effective dihedral (l_v). The effective dihedral (l_v) is plotted against Mach number for configuration A in Figure 21.

Of all the possible cross-coupling derivatives, that of pitching moment due to sideslip (C_m *v* β) was selected as the one most likely to have significance, and this has been plotted in Figures 22(*a*) and 22(*b*) for configurations A and B. It may be seen that over the range of Mach number and angle of sideslip tested the changes in pitching moment are quite small and would have no significance.

3.2 Effect of Tonics and Attachment Beams

The effect of the addition of both Tonic towed targets (configuration C) on the variation of lift coefficient (C_L) with angle of incidence compared with the clean aircraft is shown in Figures 23(*a*) and 23(*b*). A general loss of lift at higher incidences is apparent although the effect on lift curve slope is small for Mach numbers below $0{\cdot}80$, as is shown in Figure 24. The effect of removing both Tonics from their beams (configuration E) on lift and lift curve slope is to produce curves which are not significantly different from those for the clean aircraft.

The variation of pitching moment coefficient (C_m) with lift coefficient (C_L) is shown in Figures 25(*a*) and 25(*b*) for configurations A, C and E. The effect of both Tonics mounted on their beams is to increase the severity of the nose down pitching moment at high values of lift coefficient. This effect is also apparent, but to a lesser extent, when the Tonics are removed but their attachment beams remain. An interesting deviation from the general trend of the pitching moment curve occurs at Mach numbers between $0{\cdot}82$ and $0{\cdot}86$ being most apparent at $M = 0{\cdot}84$. This deviation was also present in the results for configuration D with one Tonic removed but disappeared when both Tonics were removed (configuration A and E). However, since it was present only at lift coefficients in excess of $0{\cdot}6$, this deviation should not affect the operation of the aircraft in its normal flight envelope.

The variation of drag coefficient (C_D) with lift coefficient (C_L) for configurations A and C is shown in Figures 26(*a*) and 26(*b*). The addition of the two tonics is seen to give rise to an increment in drag coefficient of $0{\cdot}0035$ at zero lift at a Mach number of $0{\cdot}5$. The variation of drag coefficient, (C_D) with Mach number at lift coefficients of 0, $0{\cdot}2$, and $0{\cdot}4$ is shown in

Figure 27, and indicates that a similar drag increment is maintained throughout the range of lift coefficient considered, for all Mach numbers up to the beginning of the compressibility drag rise, and increasing slightly thereafter. There is no significant difference in drag values between the clean aircraft and configuration E with the tonic beams on the aircraft but no Tonics attached.

The addition of the two Tonic targets and their attachment beams (configuration C), or of the attachment beams alone (configuration E), has an insignificant effect on yawing moment coefficient. However, with only one Tonic in place (configuration D), a significant decrease in yawing moment is obtained due to the drag of the Tonic remaining on the portside of the aircraft. The variation of yawing moment coefficient (C_n) with angle of sideslip (β) for this configuration and the clean aircraft (configuration A) is shown in Figure 28. Even for this case however there is very little change in the weathercock stability derivative.

The variation of side force coefficient (C_Y) with angle of sideslip (β) for configurations A, C and D is shown in Figures 29(*a*) and 29(*b*). The addition of both Tonics results in a bodily downward shift of the C_Y *v* β curve. With only one Tonic in place the opposite effect results. This effect must be due to asymmetry in the attachment of the Tonics and/or their attachment beams to the model. The expected change in yawing moment due to such asymmetry is probably not apparent due to the proximity of the Tonics to the moment centre of the aircraft.

The effect of the addition of the two Tonics on the variation of rolling moment coefficient (C_l) with angle of sideslip (β) is shown in Figures 30(*a*) and 30(*b*). The residual rolling moment at zero sideslip remains and is similar in magnitude to the clean aircraft case. Figure 30 shows however a slight decrease in effective dihedral (l_v), the difference increasing with Mach number.

No cross-coupling derivatives other than C_m *v* β are likely to be of significance for the configurations involving the Tonic targets and their attachment beams, with the possible exception of the rolling moment due to incidence for configuration D, with only one Tonic in place. As for the clean aircraft case, the variation of pitching moment with sideslip is small and would be of no significance for any of configurations C, D or E. Figure 31 shows the variation of rolling moment coefficient (C_l) with incidence for configuration D, together with the clean aircraft, configuration A, for comparison. The variation with incidence is quite small and again this cross coupling derivative should be of no significance over the normal operating range of the aircraft.

4. CONCLUSIONS

Measurements have been made over the high speed operating range of the Jindivik 203B target aircraft on a 1/20th scale model equipped with a six component strain gauge balance. The tests covered a range of incidence from -3° to 7° and angles of sideslip from 0° to 4°, for Mach numbers from 0·5 to 0·92. The configurations tested included the basic clean aircraft with and without fin and tailplane and various combinations of Tonic towed targets and their attachment beams.

The major conclusions reached as a result of these tests are as follows:

(i) The static longitudinal stability of the aircraft appears to be satisfactory, the addition of any combination of Tonics or beams having very little effect.

(ii) The static lateral stability again appears satisfactory, the weathercock derivative (n_v) and effective dihedral (l_v) both appearing to be adequate for the configurations tested.

(iii) The major effects of the addition of the Tonic towed targets on their mounting beams were a small decrease in lift coefficient together with a not insignificant drag penalty.

(iv) Of the cross-coupling derivatives, that of pitching moment due to sideslip is very small. For the configuration with only one Tonic in place rolling moment due to incidence is increased compared to the clean aircraft configuration but again remains very small.

(v) The effect of the available variation of Reynolds number on the results is not significant. on any component except drag. For the drag results, as expected, increasing the Reynolds' number from 0·45 to 0·63 $\times$ 10^6 decreased the zero lift drag at a Mach number of 0·5, the magnitude being approximately 0·0035 (approximately 12%).

The tests as a whole will provide a useful basis for comparison for any future changes to the configuration of the basic aircraft or for any additional externally carried items.

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TABLE 1

Main Dimensions of Model and Full Scale Aircraft

	Model Scale	Full Scale
(1) Wing		
Chord	2·40 in.	48·00 in.
Span (nominal)	11·40 in.	228·00 in.
To centreline of pods	11·82 in.	236·48 in.
Gross wing area	27·36 in.²	76·0 ft.²
Wing section	NACA 64–106 (modified)	
Aspect ratio	4·75	
Taper ratio	1·0	
Leading edge sweep	0°	
Trailing edge sweep	0°	
Dihedral	2·5°	
Incidence relative to F.R.L.	1·0°	
(2) Flaps		
Chord	0·60 in.	12·00 in.
Span (per side)	3·45 in.	68·95 in.
Area (per side)	2·07 in.²	827·4 in.²
Distance from inboard end to aircraft datum	0·79 in.	15·75 in.
Neutral Setting — Inboard	+2°	
Neutral Setting — Outboard	0°	
Nominal setting	+1°	
(3) Ailerons		
Chord	0·60 in.	12·00 in.
Span (per side)	1·35 in.	27·00 in.
Area (per side)	0·81 in.²	324·0 in.²
Distance from inboard end to aircraft datum	4·25 in.	84·96 in.
Neutral setting	0°	
(4) MK.8 Pods		
Overal length	7·22 in.	144·33 in.
Diameter	0·625 in.	12·50 in.
Distance from pod centreline to F.R.L.	5·91 in.	118·24 in.
Distance from pod nose to 25% wing chord	3·70 in.	74·09 in.
(5) Pod Fins		
Distance from pod nose to fin trailing edge	6·25 in.	125·00 in.
Root chord	1·20 in.	24·00 in.
Tip chord	0·60 in.	12·00 in.
Maximum height above pod centreline	0·91 in.	18·25 in.
Angle between fin and F.R.L.	25°	
Aerofoil section	NACA 64–008 (modified)	
(6) Tailplane		
Chord	1·35 in.	27·00 in.
Span	3·90 in.	78·00 in.
Gross area	5·265 in.²	2106·0 in.²
Aspect ratio	2·89	
Taper ratio	1·0	
Sweep at quarter chord	0°	
Incidence relative to F.R.L.	$-\frac{1}{2}°$	−0°27'
Aerofoil section	NACA 64–006	

TABLE I (*Continued*)

Main Dimensions of Model and Full Scale Aircraft

	Model Scale	Full Scale
(7) Elevators		
Chord	0·45 in.	9·00 in.
Span (per side)	1·63 in.	32·64 in.
Area (per side)	0·73 in.^{2}	293·4 in.^{2}
Distance from inboard end to F.R.L.	0·28 in.	5·55 in.
(8) Fin		
Maximum height above F.R.L.	2·64 in.	52·80 in.
Gross area above tailplane chord	2·35 in.^{2}	938·9 in.^{2}
Sweep back of leading edge	$14\frac{1}{2}^\circ$	
Sweep back of trailing edge	0°	
Tip chord	1·20 in.	24·00 in.
Root chord	1·60 in.	32·00 in.
Aerofoil section	NACA 64–006 (modified)	
(9) Fuselage		
Overall length (excluding pitot probe)	13·99 in.	279·75 in.
Maximum height excluding skid beam	1·90 in.	38·04 in.
Maximum width	1·65 in.	33·00 in.
Distance of 25% wing chord aft of STN 'O'	6·61 in.	132·25 in.
Distance of 25% wing chord below F.R.L.	0·41 in.	8·25 in.
Distance of 25% tailplane chord aft of STN'O'	12·27 in.	245·45 in.
Distance of 25% tailplane chord above F.R.L.	0·86 in.	17·24 in.
Distance of fin trailing edge aft of STN'O'	13·17 in.	263·37 in.
(10) Tonic Towed Targets		
Distance of Tonic centreline below F.R.L.	0·79 in.	15·80 in.
Distance of Tonic centreline outboard of F.R.L.	1·16 in.	23·25 in.
Distance of Tonic beam leading edge ahead of 25% wing chord	0·75 in.	15·00 in.
Angle between Tonic centreline and F.R.L.	$-\frac{1}{2}^\circ$	
Distance of Tonic nose forward of 25% wing chord	1·175 in.	23·50 in.
Tonic fuselage diameter	0·325 in.	6·50 in.
Tonic overall length	2·325 in.	46·45 in.

NOTATION FOR TABLE II

The following notation refers to the computer generated data listing's in Table II. Where appropriate, the corresponding notation from the main body of the note is also included

Table II Notation	Main Body Notation	Explanation
SER	—	Serial number
REYN	R	Reynold's number
MACH	M	Free stream Mach number
INCID.	α	Angle of incidence
LIFT.	C_L	Lift coefficient
PITCH	C_m	Pitching moment coefficient
DRAG	C_D	Drag force coefficient
NORMAL	Cz	Normal force coefficient
AXIAL	C_X	Axial force coefficient
CLSQ.	$C_L{}^2$	Lift coefficient squared
BASE	C_{XB}	Base force coefficient
AINC	α_1	Altenrative angle of incidence
SLIP	β	Angle of sideslip
CROSS	C_C	Cross wind force coefficient
YAW M.	C_n	Yawing moment coefficient
ROLL M.	C_l	Rolling moment coefficient
RANG	φ	Roll angle
SIDE F	C_Y	Side force coefficient

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
006	0.465	0.701	07.42	0.7917	0.0007	0.1285	-0.8017	-0.0233	0.6266	0.0017	07.42	00.00	0.0004	0.0000	0.0035	180.0	-0.0005
007	0.467	0.700	06.42	0.7734	0.0112	0.1045	-0.7803	-0.0155	0.5980	0.0018	06.42	00.00	0.0014	0.0002	0.0041	180.0	-0.0015
008	0.465	0.701	05.41	0.7091	0.0349	0.0824	-0.7138	-0.0133	0.5027	0.0019	05.41	00.00	0.0007	-0.0002	0.0031	180.0	-0.0008
009	0.465	0.701	04.36	0.6145	0.0450	0.0633	-0.6176	-0.0144	0.3775	0.0019	04.36	00.00	0.0005	-0.0002	0.0028	180.0	-0.0006
010	0.467	0.700	03.30	0.4980	0.0446	0.0517	-0.5003	-0.0212	0.2479	0.0017	03.30	00.00	0.0006	-0.0001	0.0027	180.0	-0.0007
011	0.467	0.700	01.18	0.2671	0.0461	0.0404	-0.2680	-0.0334	0.0712	0.0016	01.18	00.00	0.0004	-0.0003	0.0021	180.0	-0.0005
012	0.463	0.700	-00.94	0.0347	0.0534	0.0367	-0.0342	-0.0359	0.0011	0.0014	-00.94	00.00	0.0002	-0.0004	0.0023	180.0	-0.0003
013	0.465	0.701	-03.06	-0.1965	0.0634	0.0422	0.1984	-0.0304	0.0384	0.0013	-03.06	00.00	0.0011	-0.0005	0.0027	180.0	-0.0012
016	0.450	0.599	07.35	0.7793	-0.0079	0.1215	-0.7886	-0.0192	0.6072	0.0016	07.35	00.00	0.0007	0.0000	0.0032	180.0	-0.0009
017	0.450	0.601	06.35	0.7316	0.0206	0.0952	-0.7377	-0.0119	0.5351	0.0018	06.35	00.00	0.0005	0.0001	0.0025	180.0	-0.0006
018	0.450	0.601	05.32	0.6562	0.0364	0.0743	-0.6604	-0.0113	0.4305	0.0018	05.32	00.00	0.0004	-0.0001	0.0030	180.0	-0.0005
019	0.450	0.602	04.28	0.5620	0.0398	0.0594	-0.5650	-0.0154	0.3157	0.0019	04.28	00.00	0.0005	0.0000	0.0031	180.0	-0.0006
020	0.450	0.601	03.23	0.4548	0.0406	0.0486	-0.4569	-0.0211	0.2067	0.0017	03.23	00.00	0.0009	0.0001	0.0029	180.0	-0.0010
021	0.447	0.599	01.14	0.2460	0.0451	0.0385	-0.2468	-0.0321	0.0604	0.0015	01.14	00.00	0.0002	-0.0002	0.0020	180.0	-0.0003
022	0.447	0.599	-00.95	0.0296	0.0538	0.0366	-0.0291	-0.0356	0.0008	0.0015	-00.95	00.00	0.0003	-0.0003	0.0023	180.0	-0.0004
023	0.450	0.601	-03.04	-0.1821	0.0654	0.0406	0.1839	-0.0296	0.0330	0.0013	-03.04	00.00	0.0008	-0.0004	0.0027	180.0	-0.0009
026	0.458	0.500	07.30	0.7689	-0.0004	0.1160	-0.7775	-0.0155	0.5911	0.0017	07.30	00.00	0.0008	0.0001	0.0030	180.0	-0.0009
027	0.462	0.501	06.30	0.7094	0.0248	0.0896	-0.7150	-0.0094	0.5031	0.0019	06.30	00.00	-0.0003	0.0000	0.0023	180.0	0.0002
028	0.462	0.501	05.27	0.6193	0.0347	0.0687	-0.6231	-0.0097	0.3834	0.0019	05.27	00.00	0.0002	0.0000	0.0027	180.0	-0.0003
029	0.462	0.501	04.23	0.5261	0.0368	0.0557	-0.5289	-0.0147	0.2766	0.0020	04.23	00.00	0.0005	0.0001	0.0030	180.0	-0.0006
030	0.462	0.501	03.19	0.4319	0.0385	0.0470	-0.4339	-0.0211	0.1864	0.0019	03.19	00.00	0.0007	0.0001	0.0028	180.0	-0.0008
031	0.462	0.501	01.12	0.2326	0.0444	0.0378	-0.2334	-0.0315	0.0540	0.0018	01.12	00.00	0.0003	-0.0002	0.0023	180.0	-0.0004
032	0.462	0.500	-00.96	0.0274	0.0535	0.0357	-0.0269	-0.0346	0.0007	0.0016	-00.96	00.00	0.0002	-0.0003	0.0025	180.0	-0.0003
033	0.462	0.501	-03.03	-0.1743	0.0658	0.0397	0.1761	-0.0293	0.0303	0.0012	-03.03	00.00	0.0007	-0.0004	0.0028	180.0	-0.0008
051	0.442	0.921	07.46	0.8613	-0.0761	0.1765	-0.8771	-0.0601	0.7418	0.0030	07.46	00.00	-0.0047	-0.0018	-0.0009	179.9	0.0046
052	0.440	0.920	06.42	0.7967	-0.0824	0.1501	-0.8086	-0.0572	0.6347	0.0029	06.42	00.00	-0.0039	-0.0020	-0.0019	179.9	0.0038
053	0.440	0.920	05.37	0.7178	-0.0749	0.1269	-0.7267	-0.0562	0.5153	0.0029	05.37	00.00	-0.0031	-0.0017	-0.0014	179.9	0.0030
054	0.439	0.921	04.32	0.6317	-0.0717	0.1052	-0.6380	-0.0543	0.3990	0.0030	04.32	00.00	-0.0024	-0.0014	-0.0006	179.9	0.0023
055	0.440	0.920	03.27	0.5292	-0.0622	0.0887	-0.5335	-0.0555	0.2798	0.0030	03.27	00.00	-0.0015	-0.0010	0.0009	180.0	0.0014
056	0.440	0.920	01.14	0.2729	-0.0264	0.0657	-0.2743	-0.0573	0.0744	0.0029	01.14	00.00	-0.0008	-0.0007	0.0016	180.0	0.0007
057	0.440	0.920	-00.99	-0.0091	0.0191	0.0572	0.0100	-0.0545	0.0000	0.0026	-00.99	00.00	-0.0003	-0.0007	0.0018	180.0	0.0001
058	0.440	0.919	-03.12	-0.2691	0.0565	0.0690	0.2724	-0.0523	0.0723	0.0021	-03.12	00.00	0.0012	-0.0005	0.0027	180.0	-0.0013
002	0.447	0.900	07.45	0.8444	-0.0750	0.1659	-0.8589	-0.0524	0.7128	0.0026	07.45	00.00	-0.0025	-0.0014	-0.0006	179.9	0.0024
003	0.447	0.899	06.41	0.7724	-0.0665	0.1388	-0.7832	-0.0493	0.5965	0.0024	06.41	00.00	-0.0028	-0.0015	-0.0012	179.9	0.0027
004	0.447	0.899	05.38	0.6950	-0.0504	0.1164	-0.7030	-0.0483	0.4829	0.0025	05.38	00.00	-0.0025	-0.0015	-0.0010	179.9	0.0024

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
005	0.447	0.900	04.34	0.6200	-0.0435	0.0986	-0.6257	-0.0489	0.3843	0.0025	04.34	(0.00	-0.0020	-0.0012	-0.0006	179.9	0.0019
006	0.447	0.901	03.29	0.5291	-0.0373	0.0822	-0.5331	-0.0492	0.2798	0.0025	03.29	(0.00	-0.0015	-0.0010	0.0005	180.0	0.0014
007	0.447	0.899	01.17	0.3072	-0.0133	0.0587	-0.3084	-0.0501	0.0943	0.0023	01.17	(0.00	-0.0005	-0.0006	0.0015	180.0	0.0004
008	0.447	0.899	-00.97	0.0361	0.0122	0.0485	-0.0354	-0.0471	0.0012	0.0020	-00.97	(0.00	0.0003	-0.0005	0.0019	180.0	-0.0004
009	0.447	0.901	-03.12	-0.2648	0.0561	0.0594	0.2676	-0.0432	0.0700	0.0018	-03.12	(0.00	0.0015	-0.0003	0.0031	180.0	-0.0016
012	0.450	0.880	07.46	0.8241	-0.0517	0.1569	-0.8377	-0.0464	0.6791	0.0022	07.46	(0.00	-0.0030	-0.0016	0.0005	180.0	0.0029
013	0.449	0.880	06.42	0.7674	-0.0531	0.1334	-0.7776	-0.0445	0.5888	0.0023	06.42	(0.00	-0.0017	-0.0014	-0.0010	179.9	0.0016
014	0.449	0.879	05.39	0.6929	-0.0392	0.1098	-0.7002	-0.0418	0.4800	0.0024	05.39	(0.00	-0.0023	-0.0013	-0.0009	179.9	0.0022
015	0.449	0.879	04.36	0.6197	-0.0243	0.0906	-0.6249	-0.0409	0.3838	0.0024	04.36	(0.00	-0.0018	-0.0011	-0.0001	179.9	0.0017
016	0.449	0.879	03.31	0.5338	-0.0161	0.0765	-0.5374	-0.0432	0.2848	0.0023	03.31	(0.00	-0.0012	-0.0009	0.0006	180.0	0.0011
017	0.450	0.879	01.20	0.3298	0.0008	0.0550	-0.3310	-0.0459	0.1087	0.0021	01.20	(0.00	-0.0005	-0.0005	0.0018	180.0	0.0004
018	0.450	0.879	-00.95	0.0576	0.0213	0.0445	-0.0570	-0.0437	0.0033	0.0018	-00.95	(0.00	0.0001	-0.0005	0.0022	180.0	-0.0002
019	0.450	0.879	-03.11	-0.2583	0.0529	0.0511	0.2606	-0.0355	0.0666	0.0015	-03.11	(0.00	0.0021	-0.0002	0.0029	180.0	-0.0022
022	0.450	0.859	07.44	0.8056	-0.0525	0.1490	-0.8182	-0.0413	0.6489	0.0020	07.44	(0.00	-0.0006	-0.0014	0.0032	180.0	0.0005
023	0.449	0.860	06.43	0.7712	-0.0435	0.1295	-0.7809	-0.0400	0.5946	0.0023	06.43	(0.00	-0.0011	-0.0014	-0.0010	179.9	0.0010
024	0.453	0.863	05.40	0.6973	-0.0310	0.1072	-0.7044	-0.0386	0.4860	0.0025	05.40	(0.00	-0.0022	-0.0013	-0.0005	179.9	0.0021
025	0.450	0.859	04.37	0.6296	-0.0133	0.0870	-0.6345	-0.0364	0.3963	0.0023	04.37	(0.00	-0.0018	-0.0011	0.0002	180.0	0.0017
026	0.450	0.859	03.33	0.5448	-0.0014	0.0717	-0.5481	-0.0377	0.2966	0.0023	03.33	(0.00	-0.0015	-0.0009	0.0008	180.0	0.0014
027	0.450	0.858	01.22	0.3366	0.0195	0.0497	-0.3377	-0.0405	0.1132	0.0020	01.22	(0.00	-0.0001	-0.0004	0.0019	180.0	0.0000
028	0.452	0.859	-00.94	0.0565	0.0343	0.0418	-0.0559	-0.0408	0.0031	0.0019	-00.94	(0.00	-0.0001	-0.0005	0.0022	180.0	0.0000
029	0.452	0.861	-03.11	-0.2483	0.0497	0.0481	0.2504	-0.0330	0.0614	0.0016	-03.11	(0.00	0.0020	-0.0002	0.0029	180.0	-0.0021
032	0.447	0.840	07.43	0.8060	-0.0536	0.1457	-0.8182	-0.0381	0.6495	0.0021	07.43	(0.00	-0.0015	-0.0011	0.0017	180.0	0.0014
033	0.447	0.841	06.42	0.7666	-0.0397	0.1251	-0.7759	-0.0364	0.5876	0.0021	06.42	(0.00	-0.0004	-0.0012	0.0005	180.0	0.0003
034	0.449	0.840	05.41	0.7096	-0.0189	0.1023	-0.7162	-0.0328	0.5035	0.0022	05.41	(0.00	-0.0020	-0.0012	-0.0002	179.9	0.0019
035	0.447	0.841	04.38	0.6412	-0.0032	0.0835	-0.6458	-0.0320	0.4110	0.0023	04.38	(0.00	-0.0013	-0.0010	0.0006	180.0	0.0012
036	0.449	0.840	03.34	0.5583	0.0100	0.0688	-0.5614	-0.0339	0.3115	0.0022	03.34	(0.00	-0.0014	-0.0008	0.0009	180.0	0.0013
037	0.447	0.840	01.23	0.3308	0.0327	0.0474	-0.3319	-0.0382	0.1093	0.0021	01.23	(0.00	0.0000	-0.0003	0.0020	180.0	-0.0001
038	0.445	0.838	-00.93	0.0505	0.0436	0.0396	-0.0499	-0.0388	0.0024	0.0016	-00.93	(0.00	0.0000	-0.0004	0.0021	180.0	-0.0001
039	0.449	0.839	-03.10	-0.2327	0.0479	0.0458	0.2347	-0.0318	0.0540	0.0015	-03.10	(0.00	0.0009	-0.0003	0.0029	180.0	-0.0010
042	0.449	0.820	07.44	0.7975	-0.0393	0.1407	-0.8091	-0.0342	0.6358	0.0021	07.44	(0.00	-0.0013	-0.0008	0.0013	180.0	0.0011
043	0.449	0.819	06.42	0.7659	-0.0315	0.1207	-0.7747	-0.0322	0.5865	0.0021	06.42	(0.00	-0.0007	-0.0010	0.0011	180.0	0.0006
044	0.449	0.820	05.42	0.7253	-0.0090	0.0997	-0.7316	-0.0285	0.5261	0.0022	05.42	(0.00	-0.0014	-0.0010	0.0002	180.0	0.0013
045	0.449	0.819	04.40	0.6552	0.0107	0.0794	-0.6595	-0.0269	0.4292	0.0021	04.40	(0.00	-0.0012	-0.0007	0.0010	180.0	0.0011
046	0.449	0.821	03.36	0.5672	0.0240	0.0653	-0.5702	-0.0298	0.3215	0.0022	03.36	(0.00	-0.0015	-0.0007	0.0014	180.0	0.0014
047	0.449	0.821	01.22	0.3172	0.0418	0.0453	-0.3182	-0.0367	0.1005	0.0019	01.22	(0.00	-0.0001	-0.0003	0.0020	180.0	0.0000
048	0.449	0.820	-00.93	0.0451	0.0474	0.0387	-0.0446	-0.0378	0.0020	0.0017	-00.93	(0.00	0.0001	-0.0005	0.0022	180.0	-0.0002

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
049	0.449	0.819	-03.09	-0.2222	0.0498	0.0439	0.2241	-0.0305	0.0492	0.0015	-03.09	00.00	0.0010	-0.0003	0.0029	180.0	-0.0011
052	0.447	0.799	07.43	0.7999	-0.0325	0.1363	-0.8110	-0.0296	0.6398	0.0021	07.43	00.00	-0.0007	-0.0002	0.0026	180.0	0.0005
053	0.447	0.799	06.42	0.7737	-0.0289	0.1185	-0.7822	-0.0291	0.5985	0.0021	06.42	00.00	-0.0016	-0.0010	0.0003	180.0	0.0015
054	0.447	0.800	05.42	0.7337	0.0000	0.0972	-0.7397	-0.0252	0.5383	0.0022	05.42	00.00	-0.0010	-0.0008	0.0012	180.0	0.0009
055	0.447	0.799	04.41	0.6646	0.0239	0.0759	-0.6686	-0.0226	0.4416	0.0021	04.41	00.00	-0.0017	-0.0007	0.0010	180.0	0.0016
056	0.447	0.800	03.36	0.5667	0.0371	0.0608	-0.5694	-0.0253	0.3209	0.0022	03.36	00.00	-0.0001	-0.0004	0.0020	180.0	0.0000
057	0.447	0.799	01.21	0.3024	0.0451	0.0427	-0.3034	-0.0344	0.0914	0.0018	01.21	00.00	0.0000	-0.0003	0.0019	180.0	-0.0001
058	0.447	0.800	-00.93	0.0427	0.0493	0.0373	-0.0422	-0.0365	0.0018	0.0016	-00.93	00.00	0.0002	-0.0004	0.0022	180.0	-0.0003
059	0.447	0.799	-00.93	0.0433	0.0493	0.0378	-0.0428	-0.0368	0.0018	0.0017	-00.93	00.00	0.0003	-0.0002	0.0022	180.0	-0.0004
060	0.447	0.799	-03.08	-0.2147	0.0527	0.0429	0.2166	-0.0300	0.0459	0.0014	-03.08	00.00	0.0009	-0.0004	0.0028	180.0	-0.0010
063	0.453	0.779	07.43	0.8082	-0.0397	0.1356	-0.8190	-0.0281	0.6530	0.0019	07.43	00.00	-0.0008	-0.0003	0.0033	180.0	0.0007
064	0.452	0.779	06.43	0.7738	-0.0189	0.1153	-0.7819	-0.0260	0.5986	0.0020	06.43	00.00	-0.0017	-0.0009	0.0010	180.0	0.0016
065	0.453	0.781	05.43	0.7340	0.0107	0.0936	-0.7397	-0.0217	0.5387	0.0020	05.43	00.00	0.0004	-0.0007	0.0024	180.0	-0.0005
066	0.452	0.779	04.41	0.6704	0.0364	0.0734	-0.6742	-0.0195	0.4494	0.0021	04.41	00.00	-0.0011	-0.0008	0.0014	180.0	0.0010
067	0.453	0.781	03.36	0.5540	0.0448	0.0569	-0.5565	-0.0224	0.3067	0.0020	03.36	00.00	0.0000	-0.0005	0.0023	180.0	-0.0001
068	0.452	0.780	01.21	0.2918	0.0455	0.0422	-0.2928	-0.0342	0.0851	0.0019	01.21	00.00	-0.0001	-0.0004	0.0020	180.0	0.0000
069	0.453	0.782	-00.94	0.0410	0.0503	0.0377	-0.0404	-0.0366	0.0016	0.0018	-00.94	00.00	0.0001	-0.0005	0.0022	180.0	-0.0002
070	0.453	0.780	-03.08	-0.2108	0.0555	0.0414	0.2126	-0.0287	0.0442	0.0013	-03.08	00.00	0.0011	-0.0005	0.0028	180.0	-0.0012
073	0.450	0.750	07.43	0.7899	-0.0073	0.1320	-0.8004	-0.0269	0.6238	0.0019	07.43	00.00	0.0010	-0.0003	0.0041	180.0	-0.0012
074	0.450	0.751	06.43	0.7804	-0.0068	0.1110	-0.7880	-0.0211	0.6088	0.0019	06.43	00.00	-0.0006	-0.0005	0.0021	180.0	0.0005
075	0.450	0.751	05.43	0.7342	0.0223	0.0894	-0.7395	-0.0176	0.5390	0.0020	05.43	00.00	0.0013	-0.0002	0.0034	180.0	-0.0014
076	0.450	0.751	04.40	0.6535	0.0457	0.0682	-0.6569	-0.0158	0.4269	0.0020	04.40	00.00	-0.0002	-0.0006	0.0020	180.0	0.0001
077	0.449	0.750	03.33	0.5287	0.0470	0.0543	-0.5311	-0.0215	0.2794	0.0020	03.33	00.00	0.0002	-0.0003	0.0023	180.0	-0.0003
078	0.449	0.749	01.19	0.2793	0.0460	0.0415	-0.2802	-0.0338	0.0779	0.0019	01.19	00.00	0.0001	-0.0003	0.0020	180.0	-0.0002
079	0.450	0.750	-00.94	0.0388	0.0522	0.0372	-0.0383	-0.0361	0.0014	0.0017	-00.94	00.00	0.0004	-0.0004	0.0022	180.0	-0.0005
080	0.450	0.751	-03.07	-0.2041	0.0591	0.0421	0.2060	-0.0299	0.0415	0.0013	-03.07	00.00	0.0012	-0.0004	0.0027	180.0	-0.0013

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
066	0.621	0.500	07.43	0.7785	-0.0013	0.1144	-0.7869	-0.0113	0.6060	0.0013	07.43	00.00	-0.0002	0.0001	0.0031	180.0	0.0001
067	0.624	0.501	06.42	0.7223	0.0227	0.0890	-0.7278	-0.0063	0.5216	0.0014	06.42	00.00	-0.0007	0.0001	0.0025	180.0	0.0006
068	0.622	0.502	05.38	0.6350	0.0342	0.0669	-0.6386	-0.0055	0.4031	0.0015	05.38	-00.01	-0.0003	0.0002	0.0027	180.0	0.0002
069	0.624	0.501	04.33	0.5428	0.0367	0.0523	-0.5453	-0.0097	0.2944	0.0015	04.33	-00.01	-0.0001	0.0003	0.0029	180.0	0.0000
070	0.624	0.501	03.28	0.4443	0.0384	0.0434	-0.4461	-0.0165	0.1973	0.0014	03.28	-00.01	0.0000	0.0002	0.0028	180.0	-0.0001
071	0.621	0.500	01.17	0.2415	0.0442	0.0333	-0.2422	-0.0272	0.0582	0.0012	01.17	00.00	-0.0003	-0.0001	0.0023	180.0	0.0002
072	0.624	0.501	-00.94	0.0331	0.0534	0.0319	-0.0327	-0.0314	0.0010	0.0011	-00.94	-00.01	0.0000	0.0000	0.0025	180.0	-0.0001
073	0.624	0.501	-03.04	-0.1741	0.0660	0.0353	0.1757	-0.0251	0.0302	0.0009	-03.04	00.00	0.0006	-0.0002	0.0028	180.0	-0.0007

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
003	0.450	0.921	00.08	0.1435	-0.0100	0.0593	-0.1437	-0.0537	0.0205	0.0024	00.08	04.01	0.0408	0.0035	-0.0012	-090.1	-0.0449
004	0.450	0.920	00.08	0.1422	-0.0055	0.0568	-0.1424	-0.0536	0.0201	0.0024	00.08	02.01	0.0188	0.0010	-0.0003	-090.1	-0.0209
005	0.450	0.921	00.08	0.1423	-0.0045	0.0573	-0.1425	-0.0545	0.0202	0.0025	00.08	01.00	0.0087	0.0000	0.0002	-090.0	-0.0098
006	0.450	0.922	00.08	0.1344	-0.0045	0.0576	-0.1346	-0.0551	0.0180	0.0023	00.08	00.00	-0.0012	-0.0011	0.0007	-090.0	0.0010
007	0.447	0.900	00.11	0.1932	-0.0092	0.0523	-0.1934	-0.0467	0.0372	0.0022	00.11	04.01	0.0429	0.0043	-0.0009	-090.1	-0.0465
008	0.447	0.900	00.11	0.1865	-0.0037	0.0522	-0.1867	-0.0469	0.0347	0.0023	00.11	02.00	0.0194	0.0012	0.0000	-090.0	-0.0213
009	0.447	0.899	00.11	0.1906	-0.0014	0.0508	-0.1908	-0.0481	0.0362	0.0021	00.11	01.00	0.0088	0.0001	0.0003	-090.0	-0.0098
010	0.444	0.898	00.11	0.1902	-0.0022	0.0512	-0.1904	-0.0487	0.0361	0.0021	00.11	00.00	-0.0009	-0.0010	0.0008	-090.0	0.0008
013	0.449	0.880	00.13	0.2129	0.0059	0.0488	-0.2131	-0.0431	0.0452	0.0021	00.13	04.01	0.0432	0.0044	-0.0009	-090.1	-0.0466
014	0.447	0.881	00.14	0.2097	0.0113	0.0466	-0.2099	-0.0434	0.0438	0.0020	00.14	02.00	0.0200	0.0013	0.0000	-090.0	-0.0217
015	0.449	0.881	00.14	0.2082	0.0109	0.0482	-0.2084	-0.0454	0.0433	0.0021	00.14	01.00	0.0091	0.0002	0.0005	-090.0	-0.0100
016	0.449	0.879	00.14	0.2097	0.0131	0.0470	-0.2099	-0.0445	0.0438	0.0020	00.14	00.00	-0.0007	-0.0009	0.0011	-090.0	0.0006
017	0.444	0.861	00.15	0.2059	0.0254	0.0442	-0.2061	-0.0386	0.0423	0.0020	00.15	04.01	0.0432	0.0044	-0.0015	-090.1	-0.0463
018	0.442	0.859	00.15	0.2058	0.0310	0.0433	-0.2060	-0.0401	0.0423	0.0019	00.15	02.00	0.0205	0.0015	-0.0001	-090.1	-0.0221
019	0.444	0.861	00.15	0.2063	0.0293	0.0446	-0.2065	-0.0421	0.0424	0.0019	00.15	01.00	0.0096	0.0004	0.0005	-090.0	-0.0105
020	0.442	0.858	00.15	0.2048	0.0314	0.0434	-0.2050	-0.0412	0.0419	0.0018	00.15	00.00	-0.0005	-0.0008	0.0011	-090.0	0.0004
023	0.445	0.839	00.15	0.1922	0.0366	0.0428	-0.1925	-0.0373	0.0369	0.0018	00.15	04.01	0.0436	0.0044	-0.0014	-090.1	-0.0466
024	0.449	0.840	00.15	0.1934	0.0414	0.0412	-0.1936	-0.0380	0.0373	0.0020	00.15	02.00	0.0208	0.0016	-0.0002	-090.1	-0.0223
025	0.445	0.839	00.15	0.1931	0.0417	0.0415	-0.1934	-0.0390	0.0372	0.0018	00.15	01.00	0.0099	0.0004	0.0005	-090.0	-0.0107
026	0.445	0.837	00.15	0.1912	0.0425	0.0408	-0.1914	-0.0386	0.0364	0.0017	00.15	00.00	-0.0004	-0.0007	0.0011	-090.0	0.0003
027	0.440	0.820	00.14	0.1790	0.0403	0.0413	-0.1792	-0.0361	0.0319	0.0016	00.14	04.01	0.0433	0.0043	-0.0015	-090.1	-0.0462
028	0.440	0.821	00.14	0.1797	0.0453	0.0402	-0.1799	-0.0372	0.0322	0.0018	00.14	02.00	0.0209	0.0016	-0.0002	-090.1	-0.0224
029	0.440	0.820	00.14	0.1810	0.0456	0.0398	-0.1812	-0.0372	0.0327	0.0020	00.14	01.00	0.0101	0.0004	0.0005	-090.0	-0.0109
030	0.440	0.820	00.14	0.1799	0.0459	0.0400	-0.1801	-0.0379	0.0323	0.0018	00.14	00.00	-0.0002	-0.0007	0.0011	-090.0	0.0001
033	0.447	0.799	00.14	0.1727	0.0427	0.0404	-0.1729	-0.0352	0.0297	0.0017	00.14	04.01	0.0438	0.0044	-0.0013	-090.1	-0.0466
034	0.450	0.801	00.14	0.1749	0.0468	0.0384	-0.1751	-0.0354	0.0305	0.0018	00.14	02.00	0.0210	0.0017	-0.0002	-090.1	-0.0224
035	0.447	0.799	00.14	0.1720	0.0474	0.0391	-0.1722	-0.0369	0.0294	0.0017	00.14	01.00	0.0102	0.0004	0.0005	-090.0	-0.0110
036	0.450	0.800	00.14	0.1726	0.0474	0.0383	-0.1728	-0.0361	0.0297	0.0018	00.14	00.00	-0.0002	-0.0006	0.0011	-090.0	0.0001
037	0.440	0.780	00.13	0.1664	0.0436	0.0413	-0.1666	-0.0362	0.0276	0.0016	00.13	04.01	0.0434	0.0043	-0.0014	-090.1	-0.0463
038	0.440	0.780	00.13	0.1666	0.0476	0.0378	-0.1668	-0.0349	0.0277	0.0018	00.13	02.00	0.0211	0.0017	-0.0002	-090.1	-0.0225
039	0.442	0.781	00.13	0.1654	0.0480	0.0388	-0.1656	-0.0366	0.0273	0.0017	00.13	01.00	0.0101	0.0004	0.0004	-090.0	-0.0109
040	0.440	0.780	00.13	0.1664	0.0485	0.0377	-0.1666	-0.0357	0.0276	0.0016	00.13	00.00	-0.0002	-0.0007	0.0011	-090.0	0.0001
043	0.445	0.749	00.12	0.1596	0.0447	0.0401	-0.1598	-0.0351	0.0253	0.0016	00.12	04.01	0.0433	0.0043	-0.0013	-090.1	-0.0461
044	0.445	0.749	00.13	0.1591	0.0483	0.0369	-0.1593	-0.0341	0.0252	0.0017	00.13	02.00	0.0211	0.0017	-0.0002	-090.1	-0.0224
045	0.445	0.750	00.13	0.1589	0.0490	0.0382	-0.1591	-0.0361	0.0252	0.0016	00.13	01.00	0.0102	0.0004	0.0005	-090.0	-0.0109

TABLE II
CONFIGURATION A
CLEAN AIRCRAFT

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
046	0.488	0.750	00.13	0.1595	0.0497	0.0380	-0.1597	-0.0360	0.0253	0.0017	00.13	00.00	-0.0002	-0.0006	0.0011	-090.0	0.0001
049	0.445	0.699	00.11	0.1505	0.0456	0.0391	-0.1507	-0.0341	0.0226	0.0016	00.11	04.00	0.0431	0.0042	-0.0011	-090.1	-0.0459
050	0.445	0.700	00.11	0.1501	0.0490	0.0367	-0.1503	-0.0341	0.0224	0.0016	00.11	02.00	0.0211	0.0016	-0.0001	-090.0	-0.0224
051	0.445	0.700	00.11	0.1495	0.0499	0.0369	-0.1497	-0.0348	0.0223	0.0016	00.11	01.00	0.0103	0.0004	0.0005	-090.0	-0.0110
052	0.445	0.700	00.12	0.1493	0.0505	0.0374	-0.1495	-0.0354	0.0222	0.0018	00.12	00.00	0.0001	-0.0006	0.0011	-090.0	-0.0002
055	0.450	0.599	00.09	0.1369	0.0459	0.0382	-0.1370	-0.0335	0.0187	0.0015	00.09	04.00	0.0426	0.0040	-0.0010	-090.1	-0.0453
056	0.450	0.602	00.09	0.1364	0.0488	0.0365	-0.1366	-0.0337	0.0185	0.0018	00.09	02.00	0.0208	0.0015	0.0000	-090.0	-0.0222
057	0.450	0.599	00.10	0.1368	0.0498	0.0357	-0.1369	-0.0337	0.0186	0.0016	00.10	01.00	0.0103	0.0004	0.0006	-090.0	-0.0111
058	0.450	0.601	00.10	0.1356	0.0508	0.0358	-0.1357	-0.0340	0.0183	0.0016	00.10	00.00	0.0002	-0.0006	0.0011	-090.0	-0.0003
061	0.458	0.500	00.08	0.1282	0.0450	0.0368	-0.1283	-0.0320	0.0163	0.0017	00.08	04.00	0.0422	0.0039	-0.0009	-090.1	-0.0448
062	0.458	0.500	00.08	0.1277	0.0485	0.0353	-0.1278	-0.0326	0.0162	0.0018	00.08	02.00	0.0206	0.0015	0.0000	-090.0	-0.0219
063	0.458	0.499	00.08	0.1281	0.0498	0.0355	-0.1282	-0.0336	0.0163	0.0016	00.08	01.00	0.0102	0.0004	0.0007	-090.0	-0.0110
064	0.458	0.500	00.08	0.1278	0.0507	0.0351	-0.1279	-0.0333	0.0162	0.0016	00.08	00.00	0.0002	-0.0005	0.0012	-090.0	-0.0003

TABLE II
CONFIGURATION B
CLEAN AIRCRAFT - NO FIN OR TAILPLANE

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
005	0.462	0.901	07.49	0.8517	-0.0640	0.1645	-0.8660	-0.0498	0.7254	0.0023	07.49	(0.00	-0.0008	-0.0005	-0.0005	179.9	0.0007
006	0.462	0.902	06.44	0.7837	-0.0674	0.1379	-0.7943	-0.0466	0.6141	0.0024	06.44	(0.00	-0.0018	-0.0008	-0.0016	179.9	0.0016
007	0.460	0.899	05.39	0.7085	-0.0659	0.1129	-0.7161	-0.0435	0.5018	0.0024	05.39	(0.00	-0.0012	-0.0006	-0.0013	179.9	0.0011
008	0.460	0.899	04.34	0.6407	-0.0741	0.0940	-0.6460	-0.0427	0.4104	0.0025	04.34	(0.00	-0.0008	-0.0005	-0.0009	179.9	0.0007
009	0.460	0.900	03.27	0.5509	-0.0793	0.0780	-0.5546	-0.0438	0.3033	0.0026	03.27	(0.00	-0.0005	-0.0003	0.0003	180.0	0.0004
010	0.462	0.901	01.13	0.3322	-0.0834	0.0531	-0.3333	-0.0440	0.1102	0.0026	01.13	-(0.01	-0.0001	0.0000	0.0013	180.0	0.0000
011	0.463	0.899	-01.04	0.0695	-0.0720	0.0407	-0.0688	-0.0396	0.0047	0.0024	-01.04	(0.00	0.0006	0.0000	0.0017	180.0	-0.0007
012	0.463	0.899	-03.20	-0.2328	-0.0415	0.0504	0.2352	-0.0350	0.0541	0.0024	-03.20	-(0.01	0.0020	0.0001	0.0030	180.0	-0.0021
025	0.457	0.861	07.48	0.8073	-0.0344	0.1490	-0.8200	-0.0408	0.6517	0.0019	07.48	(0.00	-0.0018	-0.0014	0.0035	180.0	0.0017
026	0.457	0.861	06.45	0.7698	-0.0333	0.1256	-0.7792	-0.0363	0.5926	0.0020	06.45	(0.00	-0.0012	-0.0006	-0.0008	179.9	0.0011
027	0.455	0.860	05.41	0.7105	-0.0387	0.1035	-0.7172	-0.0339	0.5047	0.0022	05.41	(0.00	-0.0012	-0.0006	-0.0011	179.9	0.0011
028	0.457	0.861	04.36	0.6456	-0.0450	0.0850	-0.6503	-0.0333	0.4167	0.0023	04.36	(0.00	-0.0012	-0.0004	-0.0002	179.9	0.0011
029	0.457	0.861	03.30	0.5649	-0.0489	0.0680	-0.5680	-0.0330	0.3190	0.0024	03.30	(0.00	-0.0005	-0.0001	0.0007	180.0	0.0004
030	0.455	0.860	01.17	0.3713	-0.0571	0.0444	-0.3722	-0.0347	0.1378	0.0021	01.17	-(0.01	0.0003	0.0001	0.0017	180.0	-0.0004
031	0.457	0.861	-01.01	0.0927	-0.0591	0.0343	-0.0922	-0.0339	0.0085	0.0021	-01.01	(0.00	0.0007	0.0000	0.0022	180.0	-0.0008
032	0.455	0.858	-03.20	-0.2100	-0.0570	0.0396	0.2118	-0.0259	0.0439	0.0019	-03.20	-(0.01	0.0015	0.0001	0.0027	180.0	-0.0016
035	0.444	0.819	07.46	0.7862	-0.0038	0.1386	-0.7976	-0.0335	0.6180	0.0018	07.46	(0.00	-0.0013	-0.0005	0.0022	180.0	0.0012
036	0.444	0.820	06.44	0.7582	-0.0165	0.1174	-0.7666	-0.0298	0.5747	0.0019	06.44	(0.00	-0.0010	-0.0006	0.0002	180.0	0.0009
037	0.444	0.820	05.42	0.7396	-0.0249	0.0967	-0.7455	-0.0242	0.5469	0.0022	05.42	(0.00	-0.0011	-0.0004	-0.0005	179.9	0.0010
038	0.444	0.821	04.37	0.6728	-0.0262	0.0777	-0.6769	-0.0239	0.4525	0.0023	04.37	(0.00	-0.0003	-0.0002	0.0006	180.0	0.0002
039	0.444	0.820	03.32	0.5924	-0.0268	0.0603	-0.5950	-0.0236	0.3508	0.0022	03.32	-(0.01	-0.0005	0.0000	0.0013	180.0	0.0004
040	0.445	0.821	01.17	0.3481	-0.0333	0.0390	-0.3489	-0.0298	0.1211	0.0021	01.17	-(0.01	0.0001	0.0001	0.0018	180.0	-0.0002
041	0.444	0.820	-01.00	0.0814	-0.0467	0.0323	-0.0810	-0.0318	0.0065	0.0020	-01.00	-(0.01	0.0002	0.0000	0.0020	180.0	-0.0003
042	0.444	0.819	-03.17	-0.1827	-0.0622	0.0354	0.1842	-0.0232	0.0332	0.0020	-03.17	(0.00	0.0014	-0.0001	0.0027	180.0	-0.0015
045	0.442	0.781	07.45	0.7863	0.0057	0.1309	-0.7967	-0.0262	0.6181	0.0016	07.45	(0.00	-0.0012	-0.0001	0.0028	180.0	0.0011
046	0.440	0.779	06.43	0.7712	-0.0121	0.1110	-0.7789	-0.0223	0.5947	0.0017	06.43	(0.00	-0.0009	-0.0004	0.0014	180.0	0.0008
047	0.440	0.781	05.42	0.7473	-0.0102	0.0904	-0.7526	-0.0174	0.5584	0.0020	05.42	(0.00	-0.0002	-0.0004	0.0021	180.0	0.0001
048	0.440	0.779	04.39	0.6922	-0.0055	0.0693	-0.6956	-0.0140	0.4790	0.0021	04.39	(0.00	-0.0005	-0.0001	0.0011	180.0	0.0004
049	0.440	0.781	03.32	0.5796	-0.0093	0.0541	-0.5819	-0.0182	0.3359	0.0022	03.32	(0.00	0.0003	0.0001	0.0022	180.0	-0.0004
050	0.440	0.781	01.16	0.3256	-0.0280	0.0366	-0.3264	-0.0280	0.1059	0.0021	01.16	-(0.01	0.0001	0.0002	0.0018	180.0	-0.0002
051	0.440	0.781	-01.00	0.0783	-0.0426	0.0316	-0.0779	-0.0311	0.0060	0.0019	-01.00	-(0.01	0.0004	0.0000	0.0020	180.0	-0.0005
052	0.440	0.780	-03.16	-0.1685	-0.0584	0.0341	0.1700	-0.0229	0.0283	0.0020	-03.16	(0.00	0.0012	-0.0001	0.0026	180.0	-0.0013
065	0.449	0.701	07.42	0.8037	-0.0088	0.1273	-0.8136	-0.0210	0.6459	0.0015	07.42	(0.00	-0.0005	-0.0004	0.0055	180.0	0.0004
066	0.449	0.701	06.41	0.7796	0.0016	0.1012	-0.7862	-0.0119	0.6078	0.0015	06.41	(0.00	0.0005	0.0000	0.0048	180.0	-0.0006
067	0.449	0.701	05.39	0.7188	0.0078	0.0776	-0.7230	-0.0080	0.5166	0.0018	05.39	(0.00	0.0001	-0.0001	0.0030	180.0	-0.0002

TABLE II
CONFIGURATION B
CLEAN AIRCRAFT - NO FIN OR TAILPLANE

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
068	0.449	0.702	04.34	0.6336	0.0056	0.0594	-0.6364	-0.0093	0.4013	0.0020	04.34	(0.00	0.0002	0.0000	0.0027	180.0	-0.0003
069	0.449	0.701	03.27	0.5225	-0.0053	0.0475	-0.5245	-0.0157	0.2728	0.0019	03.27	-(0.01	0.0003	0.0002	0.0025	180.0	-0.0004
070	0.449	0.701	01.13	0.2969	-0.0244	0.0351	-0.2976	-0.0275	0.0881	0.0018	01.13	(0.00	0.0004	0.0000	0.0019	180.0	-0.0005
071	0.449	0.700	-01.00	0.0732	-0.0383	0.0301	-0.0727	-0.0297	0.0052	0.0017	-01.00	-(0.01	0.0002	0.0000	0.0021	180.0	-0.0003
072	0.449	0.699	-03.13	-0.1486	-0.0517	0.0328	0.1500	-0.0231	0.0219	0.0016	-03.13	(0.00	0.0008	-0.0002	0.0025	180.0	-0.0009
075	0.427	0.501	07.29	0.7727	0.0018	0.1120	-0.7807	-0.0116	0.5969	0.0014	07.29	(0.00	-0.0001	0.0002	0.0029	180.0	0.0000
076	0.424	0.500	06.28	0.7142	0.0137	0.0851	-0.7194	-0.0050	0.5101	0.0015	06.28	-(0.01	0.0002	0.0004	0.0023	180.0	-0.0003
077	0.424	0.500	05.24	0.6311	0.0112	0.0653	-0.6346	-0.0056	0.3982	0.0016	05.24	-(0.01	0.0003	0.0005	0.0026	180.0	-0.0004
078	0.427	0.502	04.20	0.5439	0.0037	0.0517	-0.5463	-0.0100	0.2956	0.0017	04.20	-(0.01	0.0007	0.0004	0.0030	180.0	-0.0008
079	0.424	0.500	03.16	0.4482	-0.0054	0.0425	-0.4500	-0.0161	0.2007	0.0016	03.16	-(0.01	0.0007	0.0004	0.0027	180.0	-0.0008
080	0.424	0.500	01.08	0.2640	-0.0202	0.0330	-0.2647	-0.0264	0.0696	0.0016	01.08	-(0.01	0.0003	0.0002	0.0021	180.0	-0.0004
081	0.424	0.500	-01.00	0.0671	-0.0332	0.0294	-0.0667	-0.0292	0.0044	0.0014	-01.00	-(0.01	0.0003	0.0000	0.0023	180.0	-0.0004
082	0.424	0.499	-03.08	-0.1243	-0.0453	0.0307	0.1257	-0.0227	0.0153	0.0014	-03.08	(0.00	0.0008	-0.0002	0.0028	180.0	-0.0009
085	0.624	0.500	07.43	0.7823	0.0001	0.1149	-0.7907	-0.0113	0.6120	0.0015	07.43	(0.00	-0.0001	0.0000	0.0028	180.0	0.0000
086	0.624	0.499	06.41	0.7275	0.0129	0.0876	-0.7329	-0.0042	0.5292	0.0016	06.41	-(0.01	0.0001	0.0003	0.0025	180.0	-0.0002
087	0.624	0.500	05.36	0.6458	0.0116	0.0653	-0.6492	-0.0030	0.4168	0.0017	05.36	-(0.01	0.0003	0.0005	0.0024	180.0	-0.0004
088	0.624	0.500	04.31	0.5576	0.0042	0.0512	-0.5599	-0.0074	0.3107	0.0017	04.31	-(0.01	0.0006	0.0005	0.0028	180.0	-0.0007
089	0.626	0.502	03.25	0.4634	-0.0046	0.0420	-0.4651	-0.0139	0.2146	0.0018	03.25	-(0.01	0.0004	0.0004	0.0027	180.0	-0.0005
090	0.624	0.499	01.13	0.2673	-0.0198	0.0312	-0.2680	-0.0245	0.0713	0.0015	01.13	-(0.01	0.0000	0.0002	0.0021	180.0	-0.0001
091	0.624	0.499	-01.00	0.0690	-0.0331	0.0281	-0.0686	-0.0277	0.0046	0.0016	-01.00	(0.00	0.0003	-0.0001	0.0023	180.0	-0.0004
092	0.624	0.501	-03.12	-0.1276	-0.0455	0.0298	0.1290	-0.0213	0.0161	0.0015	-03.12	(0.00	0.0009	-0.0002	0.0028	180.0	-0.0010

TABLE II
CONFIGURATION B
CLEAN AIRCRAFT - NO FIN OR TAILPLANE

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG	SIDE F
002	0.453	0.919	00.03	0.1749	-0.0724	0.0513	-0.1750	-0.0476	0.0305	0.0023	00.03	(4.05	0.0171	-0.0078	0.0013	-090.0	-0.0208
003	0.453	0.920	00.03	0.1638	-0.0697	0.0511	-0.1639	-0.0483	0.0267	0.0025	00.03	(2.03	0.0080	-0.0042	0.0006	-090.0	-0.0099
004	0.453	0.920	00.03	0.1656	-0.0713	0.0509	-0.1657	-0.0483	0.0273	0.0025	00.03	(1.01	0.0041	-0.0022	0.0006	-090.0	-0.0051
005	0.453	0.921	00.03	0.1668	-0.0719	0.0510	-0.1669	-0.0486	0.0277	0.0024	00.03	(0.00	0.0003	-0.0002	0.0004	-090.0	-0.0004
006	0.447	0.899	00.06	0.2225	-0.0781	0.0453	-0.2227	-0.0416	0.0494	0.0021	00.06	(4.05	0.0183	-0.0075	0.0017	-090.0	-0.0216
007	0.447	0.899	00.05	0.2185	-0.0787	0.0451	-0.2187	-0.0423	0.0477	0.0023	00.05	(2.02	0.0086	-0.0039	0.0011	-090.0	-0.0103
008	0.447	0.899	00.05	0.2181	-0.0792	0.0448	-0.2182	-0.0423	0.0474	0.0023	00.05	(1.01	0.0042	-0.0020	0.0008	-090.0	-0.0051
009	0.447	0.899	00.05	0.2169	-0.0792	0.0451	-0.2170	-0.0427	0.0469	0.0022	00.05	(0.00	0.0002	-0.0002	0.0005	-090.0	-0.0003
012	0.449	0.880	00.08	0.2448	-0.0680	0.0420	-0.2450	-0.0382	0.0598	0.0021	00.08	(4.05	0.0189	-0.0072	0.0017	-090.0	-0.0219
013	0.449	0.879	00.08	0.2438	-0.0691	0.0417	-0.2440	-0.0389	0.0593	0.0021	00.08	(2.02	0.0089	-0.0037	0.0012	-090.0	-0.0105
014	0.449	0.879	00.08	0.2428	-0.0690	0.0414	-0.2430	-0.0389	0.0589	0.0021	00.08	(1.01	0.0045	-0.0019	0.0010	-090.0	-0.0054
015	0.449	0.879	00.08	0.2425	-0.0695	0.0411	-0.2427	-0.0388	0.0587	0.0021	00.08	(0.00	0.0004	-0.0001	0.0008	-090.0	-0.0005
016	0.444	0.860	00.09	0.2405	-0.0540	0.0396	-0.2407	-0.0359	0.0577	0.0019	00.09	(4.05	0.0190	-0.0071	0.0011	-090.0	-0.0218
017	0.440	0.861	00.09	0.2402	-0.0543	0.0384	-0.2404	-0.0356	0.0576	0.0021	00.09	(2.02	0.0091	-0.0036	0.0010	-090.0	-0.0106
018	0.444	0.862	00.09	0.2411	-0.0561	0.0375	-0.2412	-0.0351	0.0580	0.0021	00.09	(1.01	0.0045	-0.0018	0.0009	-090.0	-0.0053
019	0.440	0.860	00.09	0.2384	-0.0538	0.0375	-0.2386	-0.0353	0.0567	0.0019	00.09	(0.00	0.0003	-0.0001	0.0008	-090.0	-0.0004
022	0.452	0.820	00.09	0.2161	-0.0375	0.0350	-0.2162	-0.0315	0.0466	0.0018	00.09	(4.05	0.0194	-0.0071	0.0013	-090.0	-0.0219
023	0.452	0.821	00.09	0.2170	-0.0377	0.0351	-0.2172	-0.0325	0.0470	0.0019	00.09	(2.02	0.0096	-0.0036	0.0011	-090.0	-0.0109
024	0.452	0.820	00.09	0.2152	-0.0374	0.0343	-0.2154	-0.0321	0.0462	0.0018	00.09	(1.01	0.0050	-0.0018	0.0011	-090.0	-0.0057
025	0.452	0.820	00.09	0.2159	-0.0376	0.0348	-0.2161	-0.0327	0.0465	0.0019	00.09	(0.00	0.0007	-0.0001	0.0010	-090.0	-0.0008
028	0.452	0.780	00.08	0.2021	-0.0344	0.0340	-0.2022	-0.0307	0.0408	0.0016	00.08	(4.04	0.0194	-0.0071	0.0014	-090.0	-0.0219
029	0.449	0.779	00.08	0.2017	-0.0338	0.0329	-0.2019	-0.0304	0.0406	0.0019	00.08	(2.02	0.0097	-0.0037	0.0011	-090.0	-0.0110
030	0.452	0.779	00.08	0.2023	-0.0336	0.0330	-0.2024	-0.0308	0.0408	0.0018	00.08	(1.01	0.0051	-0.0018	0.0010	-090.0	-0.0058
031	0.452	0.780	00.08	0.2021	-0.0338	0.0332	-0.2022	-0.0312	0.0407	0.0018	00.08	(0.00	0.0009	-0.0001	0.0009	-090.0	-0.0010
034	0.449	0.700	00.07	0.1842	-0.0305	0.0342	-0.1844	-0.0310	0.0339	0.0016	00.07	(4.04	0.0194	-0.0070	0.0014	-090.0	-0.0219
035	0.449	0.700	00.07	0.1852	-0.0298	0.0315	-0.1853	-0.0292	0.0342	0.0018	00.07	(2.02	0.0096	-0.0036	0.0011	-090.0	-0.0108
036	0.449	0.701	00.07	0.1858	-0.0297	0.0321	-0.1860	-0.0300	0.0345	0.0018	00.07	(1.01	0.0052	-0.0018	0.0011	-090.0	-0.0059
037	0.449	0.700	00.07	0.1849	-0.0293	0.0317	-0.1850	-0.0299	0.0341	0.0016	00.07	(0.00	0.0010	-0.0001	0.0010	-090.0	-0.0011
040	0.455	0.500	00.04	0.1618	-0.0258	0.0317	-0.1619	-0.0286	0.0261	0.0016	00.04	(4.03	0.0192	-0.0067	0.0017	-090.0	-0.0215
041	0.455	0.500	00.04	0.1619	-0.0248	0.0301	-0.1620	-0.0280	0.0261	0.0017	00.04	(2.01	0.0096	-0.0034	0.0014	-090.0	-0.0108
042	0.455	0.500	00.04	0.1623	-0.0246	0.0303	-0.1625	-0.0283	0.0263	0.0018	00.04	(1.00	0.0052	-0.0017	0.0013	-090.0	-0.0059
043	0.458	0.502	00.05	0.1633	-0.0245	0.0306	-0.1635	-0.0287	0.0266	0.0018	00.05	(0.00	0.0009	-0.0001	0.0010	-090.0	-0.0010

TABLE II
CONFIGURATION C
BOTH TONICS MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.449	0.919	07.44	0.8036	-0.0801	0.1783	-0.8200	-0.0701	0.6456	0.0027	07.44	00.00	-0.0030	-0.0014	-0.0008	179.9	0.0028
003	0.445	0.919	06.39	0.7260	-0.0720	0.1515	-0.7385	-0.0668	0.5270	0.0029	06.39	00.00	-0.0032	-0.0019	-0.0020	179.9	0.0031
004	0.449	0.920	05.35	0.6432	-0.0590	0.1303	-0.6527	-0.0668	0.4136	0.0029	05.35	00.00	-0.0022	-0.0015	-0.0019	179.9	0.0020
005	0.445	0.919	04.30	0.5583	-0.0584	0.1112	-0.5652	-0.0664	0.3116	0.0027	04.30	00.00	-0.0015	-0.0011	-0.0013	179.9	0.0013
006	0.447	0.921	03.24	0.4504	-0.0459	0.0955	-0.4551	-0.0672	0.2027	0.0027	03.24	00.00	-0.0007	-0.0006	0.0006	180.0	0.0006
007	0.449	0.919	01.13	0.2147	0.0006	0.0750	-0.2162	-0.0683	0.0460	0.0025	01.13	00.00	0.0009	-0.0002	0.0009	180.0	-0.0010
008	0.447	0.921	-00.98	-0.0082	0.0334	0.0728	0.0094	-0.0704	0.0000	0.0023	-00.98	00.00	0.0007	-0.0004	0.0013	180.0	-0.0008
009	0.447	0.920	-03.09	-0.2250	0.0566	0.0840	0.2291	-0.0700	0.0505	0.0019	-03.09	00.00	-0.0003	-0.0008	0.0020	180.0	0.0002
012	0.444	0.899	07.40	0.7701	-0.0849	0.1678	-0.7854	-0.0646	0.5930	0.0026	07.40	00.00	-0.0022	-0.0014	0.0011	180.0	0.0020
013	0.039	0.900	06.39	0.7199	-0.0630	0.1437	-0.7316	-0.0599	0.5162	0.0027	06.39	00.00	-0.0018	-0.0013	-0.0013	179.9	0.0016
014	0.444	0.900	05.36	0.6369	-0.0448	0.1215	-0.6456	-0.0588	0.4056	0.0026	05.36	00.00	-0.0019	-0.0013	-0.0010	179.9	0.0018
015	0.444	0.899	04.32	0.5620	-0.0351	0.1035	-0.5684	-0.0562	0.3157	0.0027	04.32	00.00	-0.0014	-0.0011	-0.0007	179.9	0.0013
016	0.444	0.899	03.27	0.4691	-0.0271	0.0877	-0.4735	-0.0583	0.2199	0.0025	03.27	00.00	-0.0014	-0.0007	0.0003	180.0	0.0013
017	0.444	0.901	01.15	0.2503	-0.0013	0.0671	-0.2518	-0.0597	0.0626	0.0024	01.15	00.00	0.0005	-0.0002	0.0011	180.0	-0.0006
018	0.444	0.901	-00.96	0.0176	0.0293	0.0635	-0.0167	-0.0616	0.0002	0.0022	-00.96	00.00	0.0019	-0.0001	0.0015	180.0	-0.0020
019	0.444	0.901	-03.08	-0.2085	0.0565	0.0719	0.2119	-0.0588	0.0433	0.0018	-03.08	00.00	-0.0022	-0.0015	0.0008	180.0	0.0021
022	0.440	0.879	07.39	0.7453	-0.0800	0.1573	-0.7594	-0.0576	0.5553	0.0025	07.39	00.00	-0.0027	-0.0013	0.0016	180.0	0.0026
023	0.440	0.879	06.37	0.6958	-0.0603	0.1364	-0.7068	-0.0559	0.4840	0.0024	06.37	00.00	-0.0015	-0.0015	0.0001	180.0	0.0014
024	0.440	0.879	05.37	0.6491	-0.0355	0.1157	-0.6572	-0.0519	0.4211	0.0025	05.37	00.00	-0.0024	-0.0014	-0.0009	179.9	0.0023
025	0.440	0.880	04.33	0.5722	-0.0241	0.0976	-0.5780	-0.0516	0.3272	0.0025	04.33	00.00	-0.0015	-0.0010	-0.0003	179.9	0.0014
026	0.440	0.879	03.29	0.4872	-0.0130	0.0822	-0.4912	-0.0519	0.2373	0.0023	03.29	00.00	-0.0012	-0.0007	0.0006	180.0	0.0011
027	0.442	0.881	01.18	0.2880	0.0065	0.0648	-0.2894	-0.0565	0.0829	0.0024	01.18	00.00	0.0004	-0.0003	0.0014	180.0	-0.0005
028	0.440	0.879	-00.95	0.0357	0.0332	0.0552	-0.0348	-0.0538	0.0011	0.0021	-00.95	00.00	0.0010	0.0000	0.0022	180.0	-0.0011
029	0.440	0.879	-03.08	-0.2128	0.0614	0.0637	0.2159	-0.0506	0.0452	0.0017	-03.08	00.00	-0.0020	-0.0013	0.0009	180.0	0.0019
032	0.442	0.859	07.38	0.7491	-0.0761	0.1527	-0.7626	-0.0527	0.5611	0.0024	07.38	00.00	-0.0018	-0.0013	0.0010	180.0	0.0017
033	0.439	0.859	06.36	0.6952	-0.0633	0.1320	-0.7056	-0.0517	0.4831	0.0024	06.36	00.00	-0.0008	-0.0013	0.0007	180.0	0.0007
034	0.440	0.862	05.37	0.6582	-0.0292	0.1114	-0.6659	-0.0469	0.4331	0.0024	05.37	00.00	-0.0023	-0.0013	-0.0007	179.9	0.0022
035	0.439	0.860	04.34	0.5863	-0.0127	0.0919	-0.5917	-0.0448	0.3436	0.0024	04.34	00.00	-0.0017	-0.0010	0.0002	180.0	0.0016
036	0.439	0.859	03.30	0.5061	-0.0014	0.0758	-0.5097	-0.0442	0.2560	0.0023	03.30	00.00	-0.0014	-0.0007	0.0006	180.0	0.0013
037	0.440	0.862	01.20	0.3049	0.0195	0.0578	-0.3061	-0.0492	0.0928	0.0022	01.20	00.00	0.0007	0.0000	0.0017	180.0	-0.0008
038	0.440	0.860	-00.94	0.0348	0.0415	0.0504	-0.0341	-0.0491	0.0011	0.0019	-00.94	00.00	0.0006	-0.0002	0.0022	180.0	-0.0007
039	0.440	0.860	-03.08	-0.2246	0.0623	0.0589	0.2273	-0.0452	0.0504	0.0017	-03.08	00.00	-0.0006	-0.0008	0.0016	180.0	0.0005
042	0.440	0.838	07.39	0.7575	-0.0691	0.1494	-0.7705	-0.0485	0.5737	0.0022	07.39	00.00	-0.0020	-0.0010	0.0012	180.0	0.0018
043	0.440	0.840	06.37	0.7013	-0.0546	0.1270	-0.7112	-0.0461	0.4917	0.0023	06.37	00.00	-0.0012	-0.0013	0.0004	180.0	0.0011
044	0.439	0.841	05.40	0.6440	0.0109	0.1051	-0.6512	-0.0417	0.4146	0.0024	05.40	00.00	0.0000	-0.0008	0.0008	180.0	-0.0001

TABLE II
CONFIGURATION C
BOTH TONICS MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
045	0.439	0.841	04.36	0.6025	-0.0030	0.0882	-0.6076	-0.0399	0.3630	0.0023	04.36	(0.00	-0.0013	-0.0010	0.0004	180.0	0.0012
046	0.439	0.840	05.40	0.6483	0.0131	0.1052	-0.6554	-0.0414	0.4202	0.0023	05.40	(0.00	-0.0004	-0.0007	0.0007	180.0	0.0003
047	0.440	0.839	04.36	0.6038	-0.0017	0.0885	-0.6089	-0.0401	0.3645	0.0022	04.36	(0.00	-0.0015	-0.0010	0.0003	180.0	0.0013
048	0.439	0.840	03.32	0.5229	0.0102	0.0740	-0.5265	-0.0413	0.2733	0.0023	03.32	(0.00	-0.0015	-0.0007	0.0008	180.0	0.0014
049	0.442	0.841	01.21	0.3062	0.0349	0.0528	-0.3073	-0.0443	0.0936	0.0021	01.21	(0.00	0.0008	-0.0001	0.0019	180.0	-0.0010
050	0.439	0.840	-00.94	0.0322	0.0471	0.0478	-0.0315	-0.0465	0.0010	0.0019	-00.94	(0.00	0.0001	-0.0003	0.0022	180.0	-0.0002
051	0.440	0.840	-03.09	-0.2322	0.0596	0.0569	0.2348	-0.0427	0.0537	0.0016	-03.09	(0.00	0.0008	-0.0006	0.0022	180.0	-0.0009
054	0.440	0.819	07.39	0.7541	-0.0631	0.1447	-0.7666	-0.0445	0.5686	0.0021	07.39	(0.00	-0.0020	-0.0009	0.0013	180.0	0.0019
055	0.440	0.821	06.37	0.7069	-0.0471	0.1230	-0.7163	-0.0415	0.4996	0.0022	06.37	(0.00	-0.0006	-0.0010	0.0015	180.0	0.0005
056	0.440	0.821	05.38	0.6608	-0.0094	0.1028	-0.6677	-0.0381	0.4365	0.0022	05.38	(0.00	0.0003	-0.0008	0.0021	180.0	-0.0005
057	0.439	0.819	04.37	0.6183	0.0099	0.0843	-0.6230	-0.0347	0.3821	0.0022	04.37	(0.00	-0.0006	-0.0008	0.0009	180.0	0.0005
058	0.440	0.821	03.34	0.5344	0.0233	0.0699	-0.5377	-0.0366	0.2854	0.0021	03.34	(0.00	-0.0007	-0.0006	0.0012	180.0	0.0006
059	0.440	0.820	05.87	0.6819	-0.0334	0.1139	-0.6900	-0.0414	0.4648	0.0021	05.87	(0.00	0.0004	-0.0008	0.0020	180.0	-0.0005
060	0.440	0.820	04.88	0.6433	-0.0026	0.0938	-0.6491	-0.0366	0.4137	0.0021	04.88	(0.00	-0.0003	-0.0007	0.0012	180.0	0.0002
061	0.440	0.821	01.21	0.2964	0.0430	0.0494	-0.2975	-0.0412	0.0877	0.0020	01.21	(0.00	0.0008	-0.0001	0.0019	180.0	-0.0009
062	0.440	0.820	-00.94	0.0263	0.0498	0.0460	-0.0256	-0.0447	0.0006	0.0018	-00.94	(0.00	0.0007	-0.0002	0.0021	180.0	-0.0008
063	0.440	0.820	-03.09	-0.2317	0.0574	0.0539	0.2341	-0.0399	0.0535	0.0015	-03.09	(0.00	0.0017	-0.0003	0.0025	180.0	-0.0018
066	0.442	0.801	07.39	0.7530	-0.0493	0.1418	-0.7651	-0.0416	0.5669	0.0020	07.39	(0.00	-0.0017	-0.0008	0.0012	180.0	0.0016
067	0.439	0.800	06.38	0.7115	-0.0365	0.1209	-0.7206	-0.0389	0.5062	0.0022	06.38	(0.00	-0.0011	-0.0008	0.0018	180.0	0.0010
068	0.439	0.799	05.38	0.6678	-0.0118	0.1005	-0.6744	-0.0353	0.4459	0.0022	05.38	(0.00	0.0006	-0.0005	0.0030	180.0	-0.0007
069	0.442	0.800	04.38	0.6260	0.0215	0.0810	-0.6305	-0.0309	0.3917	0.0021	04.38	(0.00	-0.0003	-0.0006	0.0011	180.0	0.0002
070	0.442	0.800	03.34	0.5304	0.0369	0.0649	-0.5333	-0.0319	0.2811	0.0020	03.34	(0.00	0.0000	-0.0003	0.0017	180.0	-0.0001
071	0.442	0.801	01.20	0.2801	0.0461	0.0474	-0.2811	-0.0396	0.0784	0.0020	01.20	(0.00	0.0008	-0.0002	0.0019	180.0	-0.0009
072	0.442	0.801	-00.94	0.0239	0.0503	0.0439	-0.0233	-0.0426	0.0005	0.0018	-00.94	(0.00	0.0007	-0.0002	0.0021	180.0	-0.0008
073	0.442	0.799	-03.08	-0.2281	0.0579	0.0507	0.2304	-0.0370	0.0519	0.0015	-03.08	(0.00	0.0013	-0.0002	0.0026	180.0	-0.0014
076	0.440	0.780	07.39	0.7554	-0.0459	0.1380	-0.7670	-0.0378	0.5706	0.0019	07.39	(0.00	-0.0017	-0.0005	0.0012	180.0	0.0016
077	0.440	0.779	06.38	0.7197	-0.0299	0.1171	-0.7284	-0.0344	0.5180	0.0019	06.38	(0.00	-0.0014	-0.0007	0.0010	180.0	0.0013
078	0.440	0.781	05.38	0.6746	-0.0008	0.0959	-0.6807	-0.0301	0.4550	0.0021	05.38	(0.00	0.0004	-0.0003	0.0030	180.0	-0.0005
079	0.440	0.780	04.38	0.6269	0.0288	0.0784	-0.6312	-0.0283	0.3929	0.0019	04.38	(0.00	0.0005	-0.0002	0.0026	180.0	-0.0006
080	0.440	0.780	03.34	0.5230	0.0439	0.0613	-0.5258	-0.0289	0.2734	0.0019	03.34	(0.00	0.0006	-0.0001	0.0020	180.0	-0.0008
081	0.442	0.781	01.27	0.3981	0.0466	0.0449	-0.3991	-0.0342	0.1584	0.0019	01.27	(0.00	0.0009	0.0000	0.0020	180.0	-0.0010
082	0.440	0.779	01.19	0.2704	0.0463	0.0463	-0.2714	-0.0388	0.0730	0.0018	01.19	(0.00	0.0011	-0.0002	0.0018	180.0	-0.0012
083	0.442	0.781	-00.95	0.0224	0.0512	0.0434	-0.0218	-0.0422	0.0004	0.0017	-00.95	(0.00	0.0005	-0.0003	0.0020	180.0	-0.0006
084	0.442	0.780	-03.08	-0.2249	0.0596	0.0505	0.2272	-0.0371	0.0504	0.0013	-03.08	(0.00	0.0016	-0.0002	0.0027	180.0	-0.0017
088	0.445	0.750	07.39	0.7682	-0.0413	0.1355	-0.7794	-0.0338	0.5901	0.0017	07.39	(0.00	0.0002	-0.0006	0.0025	180.0	-0.0003
089	0.442	0.752	06.39	0.7279	-0.0164	0.1127	-0.7360	-0.0291	0.5297	0.0018	06.39	(0.00	-0.0002	-0.0006	0.0024	180.0	0.0001

TABLE II
CONFIGURATION C
BOTH TORICS MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
090	0.442	0.751	05.39	0.6845	0.0129	0.0930	-0.6903	-0.0263	0.4683	0.0019	05.39	00.00	0.0013	-0.0002	0.0037	180.0	-0.0014
091	0.442	0.752	04.38	0.6178	0.0394	0.0722	-0.6216	-0.0228	0.3816	0.0020	04.38	00.00	0.0009	-0.0002	0.0027	180.0	-0.0010
092	0.445	0.749	03.32	0.5007	0.0457	0.0584	-0.5033	-0.0274	0.2505	0.0019	03.32	00.00	0.0011	-0.0001	0.0024	180.0	-0.0012
093	0.442	0.751	01.18	0.2588	0.0460	0.0453	-0.2598	-0.0392	0.0668	0.0018	01.18	00.00	0.0011	-0.0002	0.0018	180.0	-0.0012
094	0.442	0.751	-00.95	0.0196	0.0521	0.0431	-0.0190	-0.0419	0.0003	0.0016	-00.95	00.00	0.0012	-0.0003	0.0021	180.0	-0.0013
095	0.442	0.750	-03.07	-0.2186	0.0620	0.0492	0.2208	-0.0363	0.0476	0.0013	-03.07	00.00	0.0010	-0.0003	0.0026	180.0	-0.0011
098	0.440	0.700	07.38	0.7680	-0.0244	0.1298	-0.7784	-0.0284	0.5897	0.0016	07.38	00.00	0.0006	0.0001	0.0036	180.0	-0.0007
099	0.439	0.701	06.39	0.7362	0.0030	0.1075	-0.7437	-0.0232	0.5420	0.0017	06.39	00.00	0.0014	0.0002	0.0043	180.0	-0.0015
100	0.440	0.700	05.37	0.6751	0.0285	0.0843	-0.6801	-0.0190	0.4556	0.0017	05.37	00.00	0.0012	0.0000	0.0033	180.0	-0.0013
101	0.440	0.701	04.34	0.5818	0.0409	0.0670	-0.5853	-0.0210	0.3383	0.0018	04.34	00.00	0.0009	0.0000	0.0029	180.0	-0.0010
102	0.440	0.699	03.28	0.4722	0.0429	0.0544	-0.4747	-0.0255	0.2228	0.0018	03.28	00.00	0.0009	0.0001	0.0026	180.0	-0.0010
103	0.440	0.701	01.16	0.2457	0.0453	0.0447	-0.2467	-0.0380	0.0603	0.0017	01.16	00.00	0.0009	-0.0001	0.0019	180.0	-0.0010
104	0.440	0.701	-00.95	0.0155	0.0525	0.0417	-0.0149	-0.0405	0.0001	0.0015	-00.95	00.00	0.0010	-0.0001	0.0021	180.0	-0.0011
105	0.440	0.700	-03.06	-0.2122	0.0643	0.0474	0.2143	-0.0348	0.0449	0.0012	-03.06	00.00	0.0014	-0.0004	0.0026	180.0	-0.0015
108	0.444	0.601	07.34	0.7557	-0.0108	0.1234	-0.7654	-0.0243	0.5710	0.0015	07.34	00.00	0.0008	0.0002	0.0037	180.0	-0.0009
109	0.442	0.599	06.34	0.7098	0.0167	0.0981	-0.7164	-0.0176	0.5037	0.0015	06.34	00.00	0.0005	0.0002	0.0026	180.0	-0.0006
110	0.444	0.600	05.31	0.6288	0.0322	0.0762	-0.6333	-0.0159	0.3953	0.0017	05.31	00.00	0.0005	0.0001	0.0029	180.0	-0.0006
111	0.444	0.601	04.27	0.5370	0.0377	0.0623	-0.5402	-0.0203	0.2881	0.0018	04.27	00.00	0.0011	0.0002	0.0030	180.0	-0.0012
112	0.444	0.600	03.23	0.4383	0.0394	0.0517	-0.4406	-0.0253	0.1920	0.0016	03.23	-00.01	0.0013	0.0003	0.0028	180.0	-0.0014
113	0.444	0.600	01.13	0.2267	0.0439	0.0410	-0.2276	-0.0350	0.0513	0.0015	01.13	00.00	0.0010	0.0000	0.0021	180.0	-0.0011
114	0.444	0.601	-00.96	0.0128	0.0524	0.0404	-0.0122	-0.0391	0.0001	0.0015	-00.96	00.00	0.0010	-0.0001	0.0022	180.0	-0.0011
115	0.444	0.602	-03.05	-0.1986	0.0644	0.0450	0.2006	-0.0332	0.0393	0.0013	-03.05	00.00	0.0016	-0.0002	0.0027	180.0	-0.0017
118	0.450	0.500	07.30	0.7500	-0.0027	0.1190	-0.7592	-0.0212	0.5624	0.0016	07.30	00.00	0.0009	0.0003	0.0032	180.0	-0.0010
119	0.449	0.501	06.29	0.6880	0.0215	0.0927	-0.6942	-0.0150	0.4733	0.0018	06.29	00.00	0.0002	0.0001	0.0024	180.0	-0.0003
120	0.449	0.500	05.26	0.6004	0.0322	0.0724	-0.6046	-0.0153	0.3604	0.0018	05.26	00.00	0.0005	0.0001	0.0027	180.0	-0.0006
121	0.449	0.500	04.22	0.5118	0.0351	0.0592	-0.5149	-0.0197	0.2617	0.0017	04.22	00.00	0.0012	0.0003	0.0032	180.0	-0.0013
122	0.449	0.501	03.19	0.4140	0.0370	0.0497	-0.4163	-0.0249	0.1713	0.0017	03.19	00.00	0.0015	0.0002	0.0028	180.0	-0.0016
123	0.450	0.499	01.11	0.2147	0.0428	0.0407	-0.2155	-0.0350	0.0460	0.0015	01.11	00.00	0.0010	0.0000	0.0023	180.0	-0.0011
124	0.449	0.501	-00.97	0.0109	0.0519	0.0391	-0.0104	-0.0381	0.0000	0.0012	-00.97	00.00	0.0014	-0.0001	0.0024	180.0	-0.0015
125	0.450	0.500	-03.04	-0.1889	0.0641	0.0436	0.1909	-0.0325	0.0355	0.0011	-03.04	00.00	0.0015	-0.0002	0.0027	180.0	-0.0016
003	0.634	0.500	07.42	0.7576	-0.0059	0.1062	-0.7651	-0.0058	0.5738	0.0016	07.42	00.00	0.0001	0.0001	0.0032	180.0	-0.0002
004	0.632	0.500	06.41	0.7017	0.0199	0.0819	-0.7066	-0.0014	0.4923	0.0016	06.41	00.00	0.0003	0.0001	0.0024	180.0	-0.0004
005	0.630	0.499	05.37	0.6131	0.0323	0.0591	-0.6160	0.0003	0.3758	0.0018	05.37	00.00	-0.0002	0.0001	0.0025	180.0	0.0001
006	0.630	0.499	04.32	0.5238	0.0357	0.0452	-0.5259	-0.0039	0.2742	0.0017	04.32	00.00	0.0009	0.0002	0.0029	180.0	-0.0010
007	0.630	0.499	03.27	0.4235	0.0377	0.0359	-0.4250	-0.0101	0.1793	0.0016	03.27	00.00	0.0010	0.0002	0.0026	180.0	-0.0011
008	0.632	0.501	01.21	0.3228	0.0402	0.0224	-0.3233	-0.0141	0.1040	0.0015	01.21	00.00	0.0012	0.0000	0.0024	180.0	-0.0013
009	0.630	0.499	-00.95	0.0146	0.0528	0.0246	-0.0142	-0.0236	0.0001	0.0013	-00.95	00.00	0.0011	-0.0001	0.0023	180.0	-0.0012

TABLE II
CONFIGURATION C
BOTH TORICS MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	RINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
010	0.634	0.500	01.16	0.2221	0.0434	0.0271	-0.2228	-0.0212	0.0492	0.0015	01.16	00.00	0.0007	-0.0001	0.0021	180.0	-0.0008
011	0.630	0.499	-03.05	-0.1909	0.0654	0.0298	0.1922	-0.0184	0.0363	0.0012	-03.05	00.00	0.0014	-0.0001	0.0027	180.0	-0.0015

TABLE II
CONFIGURATION C
BOTH TORICS MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.450	0.921	00.08	0.1108	0.0126	0.0718	-0.1111	-0.0660	0.0122	0.0023	00.08	(4.02	0.0461	0.0036	-0.0047	-090.1	-0.0511
003	0.450	0.921	00.09	0.1097	0.0174	0.0698	-0.1100	-0.0665	0.0119	0.0024	00.09	(2.01	0.0226	0.0011	-0.0023	-090.1	-0.0252
004	0.450	0.919	00.09	0.1085	0.0191	0.0694	-0.1088	-0.0666	0.0117	0.0024	00.09	(1.00	0.0110	0.0002	-0.0011	-090.1	-0.0123
005	0.450	0.920	00.09	0.1062	0.0194	0.0712	-0.1065	-0.0686	0.0112	0.0025	00.09	(0.00	0.0003	-0.0008	-0.0001	-090.0	-0.0004
006	0.444	0.899	00.10	0.1444	0.0089	0.0642	-0.1446	-0.0583	0.0207	0.0022	00.10	(4.01	0.0467	0.0039	-0.0031	-090.1	-0.0512
007	0.444	0.900	00.10	0.1367	0.0145	0.0624	-0.1369	-0.0592	0.0186	0.0022	00.10	(2.01	0.0227	0.0013	-0.0015	-090.1	-0.0249
008	0.447	0.901	00.10	0.1349	0.0163	0.0626	-0.1351	-0.0599	0.0181	0.0024	00.10	(1.00	0.0116	0.0003	-0.0006	-090.1	-0.0128
009	0.444	0.900	00.10	0.1390	0.0162	0.0625	-0.1393	-0.0601	0.0192	0.0022	00.10	(0.00	0.0013	-0.0004	0.0003	-090.0	-0.0014
012	0.445	0.880	00.13	0.1796	0.0161	0.0571	-0.1799	-0.0513	0.0322	0.0021	00.13	(4.01	0.0468	0.0042	-0.0023	-090.1	-0.0508
013	0.445	0.880	00.13	0.1768	0.0205	0.0563	-0.1771	-0.0530	0.0312	0.0020	00.13	(2.01	0.0226	0.0015	-0.0006	-090.1	-0.0246
014	0.445	0.880	00.13	0.1765	0.0220	0.0554	-0.1767	-0.0526	0.0310	0.0022	00.13	(1.00	0.0113	0.0004	0.0002	-090.0	-0.0124
015	0.445	0.881	00.12	0.1732	0.0200	0.0566	-0.1734	-0.0540	0.0299	0.0023	00.12	(0.00	0.0009	-0.0004	0.0010	-090.0	-0.0010
016	0.439	0.860	00.14	0.1822	0.0299	0.0530	-0.1825	-0.0470	0.0331	0.0021	00.14	(4.01	0.0469	0.0044	-0.0026	-090.1	-0.0506
017	0.439	0.859	00.14	0.1813	0.0351	0.0513	-0.1815	-0.0481	0.0328	0.0020	00.14	(2.00	0.0229	0.0016	-0.0007	-090.1	-0.0248
018	0.439	0.859	00.14	0.1815	0.0353	0.0512	-0.1818	-0.0484	0.0329	0.0022	00.14	(1.00	0.0113	0.0005	0.0002	-090.0	-0.0123
019	0.439	0.859	00.14	0.1814	0.0339	0.0513	-0.1816	-0.0489	0.0328	0.0020	00.14	(0.00	0.0005	-0.0004	0.0010	-090.0	-0.0006
022	0.442	0.840	00.14	0.1716	0.0391	0.0494	-0.1718	-0.0437	0.0293	0.0018	00.14	(4.01	0.0481	0.0045	-0.0025	-090.1	-0.0516
023	0.442	0.841	00.14	0.1732	0.0434	0.0483	-0.1734	-0.0452	0.0299	0.0019	00.14	(2.00	0.0236	0.0017	-0.0007	-090.1	-0.0253
024	0.442	0.840	00.14	0.1725	0.0444	0.0480	-0.1727	-0.0455	0.0296	0.0019	00.14	(1.00	0.0119	0.0006	0.0001	-090.0	-0.0128
025	0.442	0.839	00.14	0.1716	0.0447	0.0478	-0.1718	-0.0456	0.0293	0.0019	00.14	(0.00	0.0012	-0.0003	0.0009	-090.0	-0.0013
026	0.435	0.819	00.13	0.1588	0.0418	0.0482	-0.1590	-0.0425	0.0251	0.0019	00.13	(4.01	0.0484	0.0046	-0.0025	-090.1	-0.0517
027	0.435	0.819	00.13	0.1583	0.0472	0.0471	-0.1585	-0.0441	0.0249	0.0018	00.13	(2.00	0.0237	0.0018	-0.0008	-090.1	-0.0254
028	0.435	0.819	00.13	0.1576	0.0479	0.0460	-0.1578	-0.0437	0.0248	0.0018	00.13	(1.00	0.0119	0.0006	0.0001	-090.0	-0.0129
029	0.435	0.820	00.13	0.1596	0.0481	0.0470	-0.1598	-0.0447	0.0253	0.0020	00.13	(0.00	0.0010	-0.0003	0.0008	-090.0	-0.0011
032	0.442	0.801	00.13	0.1525	0.0424	0.0464	-0.1527	-0.0407	0.0232	0.0018	00.13	(4.01	0.0485	0.0045	-0.0022	-090.1	-0.0517
033	0.442	0.801	00.13	0.1523	0.0475	0.0456	-0.1526	-0.0425	0.0231	0.0019	00.13	(2.00	0.0238	0.0017	-0.0007	-090.1	-0.0255
034	0.442	0.800	00.13	0.1519	0.0485	0.0449	-0.1521	-0.0425	0.0230	0.0018	00.13	(1.00	0.0121	0.0006	0.0002	-090.0	-0.0130
035	0.442	0.799	00.13	0.1513	0.0489	0.0449	-0.1515	-0.0428	0.0228	0.0018	00.13	(0.00	0.0012	-0.0003	0.0010	-090.0	-0.0013
036	0.434	0.780	00.12	0.1455	0.0430	0.0453	-0.1456	-0.0398	0.0211	0.0018	00.12	(4.01	0.0483	0.0044	-0.0023	-090.1	-0.0514
037	0.434	0.779	00.12	0.1446	0.0479	0.0451	-0.1448	-0.0421	0.0208	0.0018	00.12	(2.00	0.0238	0.0017	-0.0007	-090.1	-0.0255
038	0.434	0.780	00.12	0.1452	0.0489	0.0446	-0.1454	-0.0424	0.0210	0.0018	00.12	(1.00	0.0120	0.0005	0.0002	-090.0	-0.0129
039	0.434	0.779	00.12	0.1444	0.0496	0.0448	-0.1446	-0.0428	0.0207	0.0018	00.12	(0.00	0.0013	-0.0003	0.0008	-090.0	-0.0014
042	0.440	0.749	00.11	0.1396	0.0440	0.0446	-0.1398	-0.0392	0.0194	0.0016	00.11	(4.01	0.0483	0.0040	-0.0021	-090.1	-0.0514
043	0.442	0.751	00.12	0.1389	0.0485	0.0427	-0.1391	-0.0399	0.0192	0.0017	00.12	(2.01	0.0239	0.0015	-0.0006	-090.1	-0.0255
044	0.442	0.749	00.12	0.1375	0.0497	0.0430	-0.1376	-0.0409	0.0188	0.0017	00.12	(1.00	0.0125	0.0004	0.0001	-090.0	-0.0134

TABLE II
CONFIGURATION C
BOTH TONICS MOUNTED

SER	REYN.	MACH.	INCID	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
045	0.442	0.749	00.12	0.1385	0.0504	0.0434	-0.1387	-0.0413	0.0191	0.0018	00.12	(0.00	0.0017	-0.0004	0.0008	-090.0	-0.0018
048	0.439	0.702	00.10	0.1296	0.0439	0.0438	-0.1297	-0.0386	0.0167	0.0016	00.10	(4.01	0.0481	0.0040	-0.0019	-090.1	-0.0511
049	0.437	0.701	00.10	0.1304	0.0486	0.0424	-0.1305	-0.0396	0.0169	0.0017	00.10	(2.00	0.0240	0.0015	-0.0005	-090.1	-0.0256
050	0.437	0.700	00.11	0.1302	0.0497	0.0422	-0.1304	-0.0402	0.0169	0.0016	00.11	(1.00	0.0128	0.0004	0.0002	-090.0	-0.0136
051	0.440	0.701	00.11	0.1290	0.0502	0.0412	-0.1291	-0.0394	0.0166	0.0016	00.11	(0.00	0.0020	-0.0003	0.0008	-090.0	-0.0021
054	0.444	0.599	00.08	0.1181	0.0437	0.0421	-0.1182	-0.0373	0.0139	0.0013	00.08	(4.01	0.0473	0.0039	-0.0017	-090.1	-0.0503
055	0.444	0.600	00.09	0.1182	0.0479	0.0405	-0.1184	-0.0380	0.0139	0.0015	00.09	(2.00	0.0240	0.0015	-0.0005	-090.1	-0.0255
056	0.444	0.600	00.09	0.1187	0.0487	0.0401	-0.1189	-0.0382	0.0140	0.0015	00.09	(1.00	0.0128	0.0005	0.0001	-090.0	-0.0136
057	0.444	0.601	00.09	0.1173	0.0494	0.0392	-0.1174	-0.0376	0.0136	0.0014	00.09	(0.00	0.0020	-0.0003	0.0009	-090.0	-0.0021
060	0.449	0.501	00.07	0.1106	0.0432	0.0410	-0.1107	-0.0362	0.0121	0.0013	00.07	(4.01	0.0475	0.0038	-0.0015	-090.1	-0.0504
061	0.450	0.500	00.07	0.1101	0.0470	0.0394	-0.1103	-0.0370	0.0120	0.0014	00.07	(2.00	0.0239	0.0015	-0.0002	-090.0	-0.0253
062	0.450	0.500	00.07	0.1101	0.0482	0.0391	-0.1103	-0.0374	0.0120	0.0013	00.07	(1.00	0.0126	0.0004	0.0003	-090.0	-0.0134
063	0.449	0.501	00.07	0.1098	0.0491	0.0396	-0.1099	-0.0382	0.0119	0.0013	00.07	(0.00	0.0019	-0.0004	0.0009	-090.0	-0.0020
066	0.621	0.500	00.10	0.1167	0.0428	0.0399	-0.1169	-0.0349	0.0135	0.0014	00.10	(4.01	0.0478	0.0040	-0.0016	-090.1	-0.0506
067	0.621	0.499	00.10	0.1161	0.0466	0.0382	-0.1163	-0.0356	0.0134	0.0016	00.10	(2.00	0.0240	0.0016	-0.0002	-090.1	-0.0254
068	0.621	0.500	00.10	0.1171	0.0477	0.0376	-0.1173	-0.0357	0.0136	0.0015	00.10	(1.00	0.0129	0.0005	0.0001	-090.0	-0.0136
069	0.621	0.500	00.10	0.1160	0.0486	0.0383	-0.1161	-0.0367	0.0134	0.0014	00.10	(0.00	0.0019	-0.0003	0.0008	-090.0	-0.0021

TABLE II
CONFIGURATION D
PORT TONIC ONLY MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.449	0.900	07.44	0.8130	-0.0791	0.1665	-0.8278	-0.0574	0.6608	0.0024	07.44	00.00	-0.0072	-0.0021	-0.0050	179.9	0.0071
003	0.449	0.901	06.41	0.7493	-0.0655	0.1416	-0.7606	-0.0546	0.5614	0.0024	06.41	00.00	-0.0073	-0.0030	-0.0050	179.9	0.0072
004	0.449	0.901	05.37	0.6633	-0.0506	0.1197	-0.6717	-0.0545	0.4398	0.0026	05.37	00.00	-0.0075	-0.0031	-0.0043	179.9	0.0074
005	0.449	0.900	04.33	0.5867	-0.0378	0.1005	-0.5927	-0.0535	0.3441	0.0024	04.33	00.01	-0.0072	-0.0031	-0.0037	179.9	0.0071
006	0.449	0.901	03.28	0.4908	-0.0326	0.0842	-0.4949	-0.0536	0.2407	0.0025	03.28	00.00	-0.0065	-0.0025	-0.0023	179.9	0.0064
007	0.449	0.901	01.16	0.2713	-0.0097	0.0651	-0.2727	-0.0571	0.0735	0.0025	01.16	00.00	-0.0047	-0.0022	-0.0005	179.9	0.0046
008	0.449	0.901	-00.97	0.0210	0.0229	0.0558	-0.0202	-0.0541	0.0003	0.0021	-00.97	00.00	-0.0021	-0.0013	0.0016	180.0	0.0019
009	0.449	0.900	-03.10	-0.2480	0.0598	0.0678	0.2512	-0.0526	0.0614	0.0018	-03.10	-00.01	0.0034	0.0007	0.0051	180.0	-0.0035
012	0.442	0.859	07.40	0.7716	-0.0749	0.1499	-0.7846	-0.0471	0.5953	0.0024	07.40	00.00	-0.0035	-0.0022	-0.0006	179.9	0.0034
013	0.444	0.860	06.40	0.7279	-0.0437	0.1290	-0.7379	-0.0447	0.5297	0.0022	06.40	00.00	-0.0062	-0.0025	-0.0045	179.9	0.0061
014	0.442	0.858	05.39	0.6813	-0.0300	0.1077	-0.6886	-0.0411	0.4641	0.0022	05.39	00.00	-0.0065	-0.0025	-0.0031	179.9	0.0064
015	0.444	0.861	04.36	0.6062	-0.0154	0.0914	-0.6115	-0.0427	0.3674	0.0023	04.36	00.00	-0.0063	-0.0026	-0.0024	179.9	0.0062
016	0.444	0.860	03.31	0.5224	-0.0034	0.0745	-0.5259	-0.0421	0.2727	0.0021	03.31	00.00	-0.0058	-0.0022	-0.0010	179.9	0.0057
017	0.444	0.861	01.21	0.3206	0.0168	0.0535	-0.3217	-0.0447	0.1026	0.0020	01.21	00.00	-0.0040	-0.0016	0.0008	180.0	0.0038
018	0.444	0.861	-00.94	0.0418	0.0369	0.0461	-0.0412	-0.0450	0.0017	0.0018	-00.94	00.00	-0.0033	-0.0013	0.0018	180.0	0.0032
019	0.444	0.860	-03.10	-0.2477	0.0579	0.0548	0.2502	-0.0398	0.0612	0.0015	-03.10	00.00	0.0012	-0.0001	0.0035	180.0	-0.0013
022	0.444	0.820	07.41	0.7847	-0.0618	0.1444	-0.7968	-0.0399	0.6156	0.0021	07.41	00.00	-0.0049	-0.0019	-0.0024	179.9	0.0048
023	0.440	0.819	06.39	0.7295	-0.0452	0.1217	-0.7387	-0.0378	0.5321	0.0020	06.39	00.00	-0.0040	-0.0019	-0.0013	179.9	0.0039
024	0.444	0.820	05.40	0.6892	-0.0120	0.1012	-0.6957	-0.0340	0.4748	0.0019	05.40	00.00	-0.0058	-0.0023	-0.0021	179.9	0.0057
025	0.440	0.821	05.91	0.6975	-0.0084	0.1106	-0.7053	-0.0361	0.4864	0.0022	05.91	00.00	-0.0044	-0.0020	-0.0020	179.9	0.0043
026	0.440	0.821	04.38	0.6358	0.0092	0.0830	-0.6404	-0.0320	0.4042	0.0021	04.38	00.00	-0.0054	-0.0023	-0.0011	179.9	0.0053
027	0.440	0.820	03.35	0.5493	0.0230	0.0678	-0.5524	-0.0336	0.3015	0.0020	03.35	00.00	-0.0054	-0.0019	0.0000	180.0	0.0053
028	0.440	0.821	01.22	0.3058	0.0417	0.0462	-0.3068	-0.0378	0.0933	0.0019	01.22	00.00	-0.0032	-0.0013	0.0012	180.0	0.0031
029	0.440	0.821	-00.94	0.0338	0.0474	0.0407	-0.0333	-0.0396	0.0011	0.0017	-00.94	00.00	-0.0028	-0.0011	0.0015	180.0	0.0027
030	0.440	0.820	-03.09	-0.2344	0.0541	0.0492	0.2366	-0.0350	0.0548	0.0015	-03.09	00.00	-0.0017	-0.0010	0.0028	180.0	0.0016
033	0.449	0.779	07.41	0.7861	-0.0461	0.1364	-0.7972	-0.0321	0.6178	0.0017	07.41	00.00	-0.0052	-0.0017	-0.0033	179.9	0.0051
034	0.449	0.780	06.40	0.7463	-0.0270	0.1159	-0.7547	-0.0301	0.5569	0.0019	06.40	00.00	-0.0051	-0.0021	-0.0024	179.9	0.0050
035	0.449	0.781	05.40	0.6984	0.0007	0.0955	-0.7044	-0.0273	0.4876	0.0020	05.40	00.00	-0.0040	-0.0019	-0.0004	179.9	0.0039
036	0.449	0.780	04.91	0.6774	0.0215	0.0828	-0.6821	-0.0227	0.4588	0.0019	04.91	00.00	-0.0049	-0.0018	0.0001	180.0	0.0048
037	0.449	0.780	04.40	0.6531	0.0333	0.0753	-0.6571	-0.0230	0.4264	0.0019	04.40	00.00	-0.0050	-0.0021	-0.0001	179.9	0.0049
038	0.449	0.780	03.35	0.5378	0.0435	0.0592	-0.5405	-0.0257	0.2891	0.0020	03.35	00.00	-0.0038	-0.0016	0.0011	180.0	0.0037
039	0.449	0.781	01.20	0.2778	0.0450	0.0446	-0.2788	-0.0371	0.0770	0.0017	01.20	00.00	-0.0031	-0.0014	0.0013	180.0	0.0030
040	0.449	0.779	-00.94	0.0289	0.0500	0.0407	-0.0284	-0.0397	0.0008	0.0016	-00.94	00.00	-0.0026	-0.0013	0.0016	180.0	0.0025
041	0.449	0.780	-03.08	-0.2212	0.0571	0.0460	0.2232	-0.0328	0.0488	0.0014	-03.08	00.00	-0.0014	-0.0011	0.0024	180.0	0.0013
044	0.440	0.699	07.39	0.7816	-0.0213	0.1300	-0.7919	-0.0267	0.6108	0.0016	07.39	00.00	-0.0018	-0.0006	0.0011	180.0	0.0017

TABLE II
CONFIGURATION D
PORT TONIC ONLY MOUNTED

SER	REYN.	MACH.	INCID	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
045	0.440	0.699	06.40	0.7521	0.0058	0.1047	-0.7592	-0.0186	0.5656	0.0016	06.40	00.00	-0.0020	-0.0008	0.0018	180.0	0.0019
046	0.440	0.700	05.39	0.6914	0.0314	0.0831	-0.6963	-0.0161	0.4779	0.0018	05.39	00.00	-0.0028	-0.0013	0.0016	180.0	0.0027
047	0.442	0.701	04.35	0.6004	0.0423	0.0655	-0.6037	-0.0180	0.3603	0.0018	04.35	00.00	-0.0029	-0.0013	0.0018	180.0	0.0026
048	0.440	0.699	03.29	0.4829	0.0431	0.0528	-0.4852	-0.0233	0.2330	0.0018	03.29	00.00	-0.0023	-0.0010	0.0019	180.0	0.0022
049	0.442	0.700	01.17	0.2545	0.0451	0.0416	-0.2554	-0.0347	0.0647	0.0018	01.17	00.00	-0.0032	-0.0013	0.0014	180.0	0.0031
050	0.442	0.700	-00.95	0.0242	0.0519	0.0392	-0.0236	-0.0381	0.0005	0.0015	-00.95	00.00	-0.0027	-0.0013	0.0015	180.0	0.0026
051	0.442	0.700	-03.06	-0.2068	0.0626	0.0440	0.2087	-0.0317	0.0426	0.0013	-03.06	00.00	-0.0018	-0.0012	0.0022	180.0	0.0017
064	0.455	0.499	07.30	0.7597	-0.0021	0.1174	-0.7686	-0.0183	0.5770	0.0016	07.30	00.00	-0.0011	-0.0004	0.0020	180.0	0.0010
065	0.455	0.499	06.29	0.6956	0.0229	0.0914	-0.7016	-0.0129	0.4837	0.0017	06.29	00.00	-0.0021	-0.0007	0.0015	180.0	0.0020
066	0.455	0.501	05.27	0.6083	0.0329	0.0709	-0.6124	-0.0131	0.3700	0.0017	05.27	00.00	-0.0020	-0.0008	0.0020	180.0	0.0019
067	0.455	0.501	04.23	0.5183	0.0355	0.0576	-0.5213	-0.0176	0.2685	0.0016	04.23	00.00	-0.0015	-0.0007	0.0023	180.0	0.0014
068	0.455	0.501	03.19	0.4194	0.0373	0.0483	-0.4215	-0.0232	0.1757	0.0017	03.19	00.00	-0.0017	-0.0006	0.0021	180.0	0.0016
069	0.455	0.501	01.11	0.2236	0.0427	0.0387	-0.2244	-0.0330	0.0499	0.0014	01.11	00.00	-0.0024	-0.0010	0.0016	180.0	0.0023
070	0.455	0.502	-00.96	0.0182	0.0518	0.0370	-0.0177	-0.0360	0.0002	0.0014	-00.96	00.00	-0.0023	-0.0011	0.0019	180.0	0.0022
071	0.455	0.500	-03.04	-0.1842	0.0643	0.0412	0.1860	-0.0303	0.0338	0.0012	-03.04	00.00	-0.0021	-0.0010	0.0023	180.0	0.0020
075	0.624	0.499	07.42	0.7669	-0.0028	0.1182	-0.7759	-0.0165	0.5880	0.0015	07.42	00.00	-0.0014	-0.0004	0.0020	180.0	0.0013
076	0.627	0.501	06.41	0.7105	0.0206	0.0933	-0.7166	-0.0116	0.5048	0.0017	06.41	00.00	-0.0023	-0.0008	0.0014	180.0	0.0022
077	0.627	0.501	05.37	0.6200	0.0321	0.0709	-0.6240	-0.0110	0.3843	0.0016	05.37	00.00	-0.0026	-0.0007	0.0017	180.0	0.0025
078	0.627	0.501	04.33	0.5311	0.0353	0.0560	-0.5339	-0.0142	0.2819	0.0016	04.33	00.00	-0.0023	-0.0006	0.0022	180.0	0.0022
079	0.621	0.498	03.27	0.4321	0.0371	0.0477	-0.4342	-0.0214	0.1865	0.0015	03.27	00.00	-0.0023	-0.0007	0.0020	180.0	0.0022
080	0.624	0.499	01.16	0.2299	0.0426	0.0375	-0.2307	-0.0314	0.0527	0.0015	01.16	00.00	-0.0032	-0.0011	0.0016	180.0	0.0031
081	0.624	0.501	-00.95	0.0218	0.0519	0.0356	-0.0213	-0.0347	0.0004	0.0013	-00.95	00.00	-0.0032	-0.0011	0.0019	180.0	0.0031
082	0.624	0.499	-03.05	-0.1842	0.0646	0.0399	0.1860	-0.0291	0.0338	0.0010	-03.05	00.00	-0.0026	-0.0009	0.0024	180.0	0.0025

TABLE II
CONFIGURATION D
PORT TONIC ONLY MOUNTED

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.442	0.899	00.11	0.1632	0.0050	0.0589	-0.1634	-0.0536	0.0265	0.0021	00.11	(04.01	0.0412	0.0029	-0.0033	-090.1	-0.0453
003	0.444	0.899	00.11	0.1618	0.0086	0.0561	-0.1620	-0.0532	0.0261	0.0021	00.11	(02.01	0.0169	0.0000	-0.0019	-090.1	-0.0190
004	0.442	0.898	00.11	0.1616	0.0083	0.0557	-0.1618	-0.0532	0.0260	0.0021	00.11	(01.01	0.0056	-0.0013	-0.0013	-090.1	-0.0067
005	0.444	0.900	00.10	0.1551	0.0068	0.0571	-0.1553	-0.0547	0.0239	0.0022	00.10	(00.00	-0.0043	-0.0022	-0.0008	-090.1	0.0042
008	0.435	0.860	00.14	0.1895	0.0298	0.0490	-0.1897	-0.0435	0.0358	0.0019	00.14	(04.01	0.0426	0.0035	-0.0026	-090.1	-0.0460
009	0.435	0.861	00.14	0.1914	0.0317	0.0474	-0.1917	-0.0444	0.0365	0.0019	00.14	(02.01	0.0186	0.0005	-0.0010	-090.1	-0.0203
010	0.435	0.859	00.14	0.1915	0.0316	0.0479	-0.1918	-0.0454	0.0366	0.0019	00.14	(01.00	0.0069	-0.0007	-0.0002	-090.1	-0.0079
011	0.435	0.859	00.14	0.1903	0.0313	0.0479	-0.1905	-0.0456	0.0361	0.0019	00.14	(00.00	-0.0031	-0.0017	0.0004	-090.0	0.0030
014	0.440	0.821	00.14	0.1681	0.0416	0.0440	-0.1683	-0.0387	0.0281	0.0018	00.14	(04.01	0.0438	0.0037	-0.0026	-090.1	-0.0468
015	0.440	0.821	00.14	0.1691	0.0460	0.0429	-0.1693	-0.0400	0.0285	0.0018	00.14	(02.01	0.0193	0.0008	-0.0011	-090.1	-0.0209
016	0.439	0.819	00.14	0.1677	0.0458	0.0425	-0.1679	-0.0403	0.0280	0.0017	00.14	(01.00	0.0075	-0.0004	-0.0003	-090.1	-0.0083
017	0.440	0.820	00.14	0.1676	0.0459	0.0425	-0.1678	-0.0404	0.0280	0.0017	00.14	(00.00	-0.0028	-0.0015	0.0005	-090.0	0.0027
020	0.442	0.781	00.13	0.1544	0.0436	0.0427	-0.1546	-0.0375	0.0238	0.0018	00.13	(04.01	0.0436	0.0036	-0.0025	-090.1	-0.0465
021	0.442	0.780	00.13	0.1552	0.0479	0.0411	-0.1554	-0.0384	0.0240	0.0016	00.13	(02.01	0.0194	0.0007	-0.0011	-090.1	-0.0210
022	0.442	0.781	00.13	0.1540	0.0481	0.0409	-0.1542	-0.0388	0.0236	0.0017	00.13	(01.00	0.0077	-0.0004	-0.0002	-090.1	-0.0086
023	0.442	0.780	00.13	0.1533	0.0481	0.0416	-0.1536	-0.0397	0.0234	0.0016	00.13	(00.00	-0.0027	-0.0014	0.0003	-090.0	0.0026
026	0.444	0.699	00.11	0.1382	0.0449	0.0411	-0.1383	-0.0363	0.0190	0.0014	00.11	(04.01	0.0431	0.0033	-0.0023	-090.1	-0.0460
027	0.442	0.701	00.11	0.1387	0.0484	0.0402	-0.1389	-0.0377	0.0192	0.0015	00.11	(02.01	0.0192	0.0006	-0.0009	-090.1	-0.0207
028	0.442	0.700	00.11	0.1383	0.0491	0.0394	-0.1385	-0.0374	0.0191	0.0016	00.11	(01.00	0.0078	-0.0004	-0.0002	-090.1	-0.0086
029	0.444	0.699	00.11	0.1379	0.0494	0.0393	-0.1381	-0.0376	0.0189	0.0014	00.11	(00.00	-0.0027	-0.0014	0.0004	-090.0	0.0026
032	0.449	0.500	00.07	0.1186	0.0441	0.0385	-0.1188	-0.0343	0.0140	0.0010	00.07	(04.01	0.0421	0.0032	-0.0018	-090.1	-0.0448
033	0.449	0.501	00.07	0.1165	0.0473	0.0370	-0.1166	-0.0349	0.0135	0.0013	00.07	(02.00	0.0192	0.0008	-0.0006	-090.1	-0.0206
034	0.450	0.500	00.07	0.1167	0.0482	0.0368	-0.1169	-0.0352	0.0135	0.0013	00.07	(01.00	0.0081	-0.0001	0.0000	-090.0	-0.0088
035	0.447	0.498	00.07	0.1158	0.0484	0.0368	-0.1159	-0.0357	0.0133	0.0010	00.07	(00.00	-0.0021	-0.0012	0.0005	-090.0	0.0020
038	0.617	0.501	00.10	0.1235	0.0437	0.0373	-0.1237	-0.0328	0.0151	0.0012	00.10	(04.01	0.0424	0.0033	-0.0019	-090.1	-0.0450
039	0.567	0.502	00.11	0.1235	0.0472	0.0365	-0.1236	-0.0342	0.0151	0.0014	00.11	(02.00	0.0193	0.0008	-0.0007	-090.1	-0.0206
040	0.617	0.501	00.11	0.1239	0.0481	0.0358	-0.1241	-0.0340	0.0153	0.0014	00.11	(01.00	0.0084	-0.0002	0.0000	-090.0	-0.0091
041	0.617	0.501	00.11	0.1231	0.0483	0.0361	-0.1233	-0.0347	0.0151	0.0011	00.11	(00.00	-0.0019	-0.0012	0.0005	-090.0	0.0018

TABLE II
CONFIGURATION E
MOUNTING BEAMS ONLY

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.442	0.899	07.47	0.8347	-0.0628	0.1651	-0.8492	-0.0528	0.6967	0.0023	07.47	00.00	-0.0043	-0.0010	-0.0016	179.9	0.0042
003	0.440	0.901	06.43	0.7754	-0.0690	0.1402	-0.7863	-0.0502	0.6011	0.0024	06.43	00.00	-0.0046	-0.0019	-0.0019	179.9	0.0045
004	0.442	0.899	05.38	0.6874	-0.0528	0.1172	-0.6955	-0.0498	0.4724	0.0024	05.38	00.00	-0.0033	-0.0015	-0.0012	179.9	0.0032
005	0.442	0.900	05.91	0.7290	-0.0605	0.1276	-0.7384	-0.0495	0.5314	0.0024	05.91	00.00	-0.0030	-0.0017	-0.0020	179.9	0.0029
006	0.442	0.900	04.35	0.6114	-0.0420	0.0977	-0.6172	-0.0487	0.3737	0.0023	04.35	00.00	-0.0024	-0.0014	-0.0009	179.9	0.0022
007	0.442	0.900	03.29	0.5189	-0.0340	0.0808	-0.5228	-0.0485	0.2691	0.0023	03.29	00.00	-0.0011	-0.0008	0.0004	180.0	0.0010
008	0.442	0.900	01.17	0.2978	-0.0137	0.0596	-0.2990	-0.0513	0.0885	0.0022	01.17	00.00	-0.0007	-0.0006	0.0014	180.0	0.0006
009	0.444	0.901	-00.97	0.0226	0.0170	0.0512	-0.0218	-0.0496	0.0004	0.0020	-00.97	00.00	0.0011	-0.0003	0.0015	180.0	-0.0012
010	0.442	0.899	-03.12	-0.2705	0.0612	0.0631	0.2734	-0.0467	0.0730	0.0017	-03.12	00.00	0.0021	-0.0002	0.0028	180.0	-0.0022
013	0.439	0.860	07.43	0.7975	-0.0683	0.1518	-0.8106	-0.0453	0.6359	0.0022	07.43	00.00	-0.0017	-0.0014	0.0033	180.0	0.0016
014	0.439	0.860	06.41	0.7524	-0.0521	0.1294	-0.7623	-0.0424	0.5661	0.0021	06.41	00.00	-0.0019	-0.0014	0.0002	180.0	0.0018
015	0.440	0.861	05.92	0.7356	-0.0382	0.1177	-0.7439	-0.0390	0.5411	0.0021	05.92	00.00	-0.0036	-0.0016	-0.0018	179.9	0.0035
016	0.439	0.859	05.40	0.6995	-0.0303	0.1077	-0.7066	-0.0391	0.4891	0.0022	05.40	00.00	-0.0034	-0.0015	-0.0005	179.9	0.0033
017	0.439	0.860	04.88	0.6600	-0.0227	0.0965	-0.6659	-0.0378	0.4355	0.0021	04.88	00.00	-0.0022	-0.0013	-0.0001	179.9	0.0021
018	0.440	0.861	04.37	0.6255	-0.0175	0.0880	-0.6305	-0.0380	0.3912	0.0021	04.37	00.00	-0.0026	-0.0013	-0.0002	179.9	0.0025
019	0.439	0.860	03.33	0.5391	-0.0043	0.0712	-0.5425	-0.0378	0.2905	0.0020	03.33	00.00	-0.0018	-0.0009	0.0007	180.0	0.0017
020	0.439	0.859	01.22	0.3344	0.0168	0.0495	-0.3355	-0.0405	0.1117	0.0019	01.22	00.00	0.0001	-0.0002	0.0018	180.0	-0.0002
021	0.439	0.858	-00.94	0.0469	0.0351	0.0416	-0.0463	-0.0407	0.0021	0.0017	-00.94	00.00	0.0005	-0.0004	0.0021	180.0	-0.0006
022	0.439	0.861	-03.11	-0.2557	0.0547	0.0511	0.2580	-0.0358	0.0652	0.0014	-03.11	00.00	0.0014	-0.0002	0.0028	180.0	-0.0015
025	0.435	0.819	07.42	0.7923	-0.0486	0.1413	-0.8040	-0.0358	0.6276	0.0019	07.42	00.00	-0.0025	-0.0011	-0.0002	179.9	0.0024
026	0.435	0.819	06.40	0.7515	-0.0427	0.1210	-0.7605	-0.0344	0.5648	0.0020	06.40	00.00	-0.0010	-0.0011	0.0015	180.0	0.0009
027	0.435	0.818	05.90	0.7285	-0.0285	0.1098	-0.7361	-0.0324	0.5306	0.0019	05.90	00.00	-0.0001	-0.0009	0.0021	180.0	0.0000
028	0.435	0.820	05.41	0.7128	-0.0138	0.0986	-0.7190	-0.0291	0.5080	0.0019	05.41	00.00	-0.0010	-0.0010	0.0010	180.0	0.0009
029	0.435	0.818	04.91	0.6898	0.0006	0.0890	-0.6950	-0.0276	0.4757	0.0020	04.91	00.00	-0.0022	-0.0012	0.0005	180.0	0.0021
030	0.437	0.821	04.39	0.6500	0.0080	0.0805	-0.6544	-0.0285	0.4224	0.0020	04.39	00.00	-0.0018	-0.0009	0.0007	180.0	0.0017
031	0.435	0.820	03.35	0.5628	0.0227	0.0643	-0.5657	-0.0295	0.3166	0.0018	03.35	00.00	-0.0015	-0.0007	0.0013	180.0	0.0014
032	0.435	0.820	01.22	0.3120	0.0407	0.0433	-0.3129	-0.0349	0.0972	0.0018	01.22	00.00	0.0001	-0.0002	0.0019	180.0	-0.0002
033	0.437	0.821	-00.94	0.0388	0.0454	0.0389	-0.0383	-0.0380	0.0014	0.0016	-00.94	00.00	0.0004	-0.0003	0.0020	180.0	-0.0005
034	0.435	0.820	-03.10	-0.2325	0.0505	0.0446	0.2345	-0.0307	0.0539	0.0014	-03.10	00.00	0.0013	-0.0002	0.0027	180.0	-0.0014
037	0.437	0.781	07.43	0.7954	-0.0298	0.1361	-0.8065	-0.0304	0.6326	0.0017	07.43	00.00	-0.0034	-0.0010	-0.0018	179.9	0.0033
038	0.437	0.781	06.42	0.7651	-0.0238	0.1152	-0.7733	-0.0272	0.5853	0.0018	06.42	00.00	-0.0022	-0.0008	0.0009	180.0	0.0021
039	0.437	0.778	05.41	0.7201	0.0048	0.0919	-0.7257	-0.0216	0.5185	0.0019	05.41	00.00	0.0005	-0.0003	0.0031	180.0	-0.0006
040	0.437	0.779	04.41	0.6663	0.0340	0.0737	-0.6701	-0.0204	0.4439	0.0018	04.41	00.00	-0.0017	-0.0006	0.0011	180.0	0.0016
041	0.437	0.779	03.35	0.5504	0.0434	0.0573	-0.5529	-0.0232	0.3028	0.0018	03.35	00.00	-0.0003	-0.0002	0.0021	180.0	0.0002
042	0.437	0.779	01.20	0.2884	0.0438	0.0424	-0.2894	-0.0348	0.0831	0.0016	01.20	00.00	0.0001	-0.0002	0.0019	180.0	-0.0002
043	0.437	0.780	-00.94	0.0355	0.0486	0.0385	-0.0350	-0.0377	0.0011	0.0015	-00.94	00.00	0.0004	-0.0002	0.0021	180.0	-0.0005

TABLE II
CONFIGURATION E
MOUNTING BEAMS ONLY

SER	REYN.	MACH.	INCID.	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
044	0.437	0.779	-03.08	-0.2177	0.0544	0.0423	0.2196	-0.0294	0.0473	0.0012	-03.08	00.00	0.0014	-0.0002	0.0026	180.0	-0.0015
047	0.437	0.700	07.40	0.7975	-0.0204	0.1288	-0.8075	-0.0234	0.6358	0.0016	07.40	00.00	0.0002	0.0002	0.0033	180.0	-0.0003
048	0.434	0.698	06.40	0.7675	0.0080	0.1038	-0.7744	-0.0161	0.5889	0.0014	06.40	00.00	0.0010	0.0003	0.0037	180.0	-0.0011
049	0.434	0.699	05.39	0.7032	0.0319	0.0819	-0.7079	-0.0139	0.4943	0.0016	05.39	00.00	0.0000	-0.0001	0.0027	180.0	-0.0002
050	0.437	0.701	04.35	0.6077	0.0416	0.0636	-0.6109	-0.0156	0.3691	0.0017	04.35	00.00	0.0004	0.0000	0.0028	180.0	-0.0005
051	0.437	0.700	03.29	0.4941	0.0427	0.0521	-0.4964	-0.0219	0.2440	0.0017	03.29	00.00	0.0003	0.0001	0.0027	180.0	-0.0004
052	0.437	0.700	01.17	0.2623	0.0441	0.0407	-0.2632	-0.0340	0.0687	0.0014	01.17	00.00	0.0002	-0.0001	0.0020	180.0	-0.0003
053	0.434	0.700	-00.95	0.0304	0.0509	0.0370	-0.0299	-0.0363	0.0009	0.0013	-00.95	00.00	0.0005	-0.0002	0.0021	180.0	-0.0006
054	0.434	0.701	-03.06	-0.2000	0.0612	0.0417	0.2018	-0.0298	0.0399	0.0012	-03.06	00.00	0.0011	-0.0002	0.0026	180.0	-0.0012
057	0.444	0.497	07.30	0.7690	-0.0016	0.1155	-0.7775	-0.0156	0.5913	0.0012	07.30	00.00	0.0003	0.0004	0.0029	180.0	-0.0004
058	0.445	0.502	06.29	0.7045	0.0224	0.0896	-0.7102	-0.0104	0.4963	0.0013	06.29	00.00	-0.0004	0.0002	0.0025	180.0	0.0003
059	0.444	0.500	05.26	0.6178	0.0326	0.0695	-0.6217	-0.0112	0.3816	0.0013	05.26	00.00	-0.0003	0.0002	0.0027	180.0	0.0002
060	0.447	0.501	04.23	0.5263	0.0348	0.0553	-0.5290	-0.0150	0.2768	0.0013	04.23	-00.01	0.0003	0.0003	0.0030	180.0	-0.0004
061	0.447	0.501	03.19	0.4268	0.0365	0.0460	-0.4288	-0.0208	0.1820	0.0014	03.19	-00.01	0.0006	0.0003	0.0028	180.0	-0.0007
062	0.445	0.501	01.11	0.2301	0.0421	0.0362	-0.2309	-0.0306	0.0528	0.0012	01.11	00.00	0.0000	0.0000	0.0022	180.0	-0.0001
063	0.447	0.501	-00.96	0.0255	0.0510	0.0348	-0.0250	-0.0344	0.0005	0.0010	-00.96	00.00	0.0005	-0.0002	0.0024	180.0	-0.0006
064	0.447	0.501	-03.04	-0.1775	0.0630	0.0391	0.1792	-0.0287	0.0314	0.0010	-03.04	00.00	0.0008	-0.0001	0.0027	180.0	-0.0009
067	0.621	0.502	07.43	0.7730	-0.0030	0.1171	-0.7817	-0.0147	0.5974	0.0015	07.43	00.00	-0.0001	0.0002	0.0029	180.0	0.0000
068	0.621	0.500	06.41	0.7163	0.0215	0.0914	-0.7221	-0.0093	0.5130	0.0015	06.41	00.00	-0.0005	0.0000	0.0024	180.0	0.0004
069	0.621	0.502	05.38	0.6316	0.0320	0.0691	-0.6354	-0.0082	0.3987	0.0015	05.38	00.00	-0.0001	0.0000	0.0025	180.0	0.0000
070	0.621	0.501	04.33	0.5385	0.0347	0.0549	-0.5412	-0.0126	0.2898	0.0015	04.33	-00.01	0.0001	0.0002	0.0028	180.0	-0.0002
071	0.621	0.501	03.27	0.4398	0.0364	0.0455	-0.4418	-0.0189	0.1933	0.0015	03.27	00.00	0.0003	0.0001	0.0027	180.0	-0.0004
072	0.621	0.501	01.16	0.2374	0.0422	0.0356	-0.2382	-0.0295	0.0562	0.0013	01.16	00.00	-0.0004	-0.0002	0.0022	180.0	0.0003
073	0.621	0.501	-00.94	0.0297	0.0514	0.0345	-0.0292	-0.0339	0.0008	0.0011	-00.94	00.00	0.0001	-0.0003	0.0024	180.0	-0.0002
074	0.617	0.500	-03.05	-0.1772	0.0638	0.0371	0.1788	-0.0268	0.0313	0.0009	-03.05	00.00	0.0007	-0.0003	0.0028	180.0	-0.0009

TABLE II
CONFIGURATION E
MOUNTING BEAMS ONLY

SER	REYN.	MACH.	INCID	LIFT.	PITCH.	DRAG	NORMAL	AXIAL.	CLSQ.	BASE.	AINC.	SLIP.	CROSS.	YAW M.	ROLL M	RANG.	SIDE F
002	0.444	0.900	00.10	0.1788	-0.0073	0.0549	-0.1790	-0.0493	0.0318	0.0020	00.10	04.01	0.0446	0.0047	-0.0012	-090.1	-0.0484
003	0.444	0.900	00.10	0.1723	-0.0012	0.0528	-0.1725	-0.0496	0.0296	0.0021	00.10	02.00	0.0213	0.0017	-0.0004	-090.1	-0.0233
004	0.444	0.899	00.11	0.1743	0.0006	0.0525	-0.1745	-0.0499	0.0303	0.0021	00.11	01.00	0.0105	0.0004	0.0001	-090.0	-0.0115
005	0.444	0.900	00.10	0.1709	0.0001	0.0525	-0.1711	-0.0500	0.0291	0.0022	00.10	00.00	0.0001	-0.0006	0.0004	-090.0	-0.0002
008	0.444	0.861	00.14	0.1982	0.0229	0.0455	-0.1985	-0.0399	0.0392	0.0019	00.14	04.01	0.0447	0.0047	-0.0015	-090.1	-0.0479
009	0.440	0.859	00.15	0.1981	0.0298	0.0436	-0.1983	-0.0404	0.0391	0.0020	00.15	02.00	0.0215	0.0019	-0.0003	-090.1	-0.0231
010	0.440	0.860	00.15	0.1978	0.0298	0.0424	-0.1980	-0.0398	0.0390	0.0019	00.15	01.00	0.0106	0.0006	0.0003	-090.0	-0.0115
011	0.440	0.861	00.15	0.1999	0.0275	0.0452	-0.2001	-0.0427	0.0399	0.0020	00.15	00.00	0.0003	-0.0004	0.0010	-090.0	-0.0004
014	0.440	0.819	00.13	0.1724	0.0383	0.0419	-0.1726	-0.0366	0.0296	0.0017	00.13	04.01	0.0449	0.0047	-0.0016	-090.1	-0.0479
015	0.440	0.820	00.14	0.1740	0.0437	0.0400	-0.1742	-0.0370	0.0302	0.0018	00.14	02.00	0.0222	0.0020	-0.0003	-090.1	-0.0237
016	0.440	0.821	00.14	0.1761	0.0440	0.0405	-0.1764	-0.0381	0.0309	0.0018	00.14	01.00	0.0109	0.0007	0.0003	-090.0	-0.0117
017	0.440	0.821	00.14	0.1742	0.0442	0.0396	-0.1744	-0.0374	0.0303	0.0018	00.14	00.00	0.0004	-0.0004	0.0010	-090.0	-0.0005
020	0.440	0.779	00.13	0.1611	0.0409	0.0409	-0.1613	-0.0358	0.0259	0.0015	00.13	04.01	0.0451	0.0047	-0.0016	-090.1	-0.0480
021	0.442	0.781	00.13	0.1607	0.0458	0.0398	-0.1609	-0.0369	0.0258	0.0018	00.13	02.00	0.0222	0.0020	-0.0003	-090.1	-0.0237
022	0.442	0.781	00.13	0.1607	0.0464	0.0386	-0.1609	-0.0364	0.0257	0.0017	00.13	01.00	0.0111	0.0007	0.0003	-090.0	-0.0119
023	0.442	0.780	00.13	0.1603	0.0469	0.0382	-0.1605	-0.0361	0.0256	0.0017	00.13	00.00	0.0005	-0.0004	0.0009	-090.0	-0.0006
026	0.442	0.701	00.11	0.1442	0.0489	0.0372	-0.1444	-0.0356	0.0207	0.0013	00.11	00.00	0.0004	-0.0003	0.0010	-090.0	-0.0005
027	0.440	0.700	00.11	0.1445	0.0428	0.0397	-0.1447	-0.0349	0.0207	0.0013	00.11	04.00	0.0447	0.0044	-0.0014	-090.1	-0.0475
028	0.440	0.699	00.11	0.1456	0.0473	0.0382	-0.1458	-0.0356	0.0211	0.0015	00.11	02.00	0.0222	0.0019	-0.0003	-090.1	-0.0236
029	0.442	0.701	00.11	0.1450	0.0481	0.0365	-0.1452	-0.0346	0.0209	0.0015	00.11	01.00	0.0109	0.0007	0.0004	-090.0	-0.0116
030	0.442	0.701	00.11	0.1435	0.0490	0.0375	-0.1437	-0.0359	0.0205	0.0013	00.11	00.00	0.0004	-0.0003	0.0009	-090.0	-0.0005
033	0.455	0.501	00.07	0.1240	0.0430	0.0367	-0.1241	-0.0324	0.0153	0.0011	00.07	04.00	0.0433	0.0043	-0.0011	-090.1	-0.0459
034	0.452	0.500	00.08	0.1234	0.0465	0.0352	-0.1235	-0.0331	0.0151	0.0012	00.08	02.00	0.0213	0.0019	-0.0001	-090.0	-0.0226
035	0.452	0.500	00.08	0.1228	0.0476	0.0348	-0.1230	-0.0334	0.0150	0.0011	00.08	01.00	0.0106	0.0007	0.0005	-090.0	-0.0113
036	0.452	0.500	00.08	0.1228	0.0485	0.0352	-0.1230	-0.0342	0.0150	0.0009	00.08	00.00	0.0005	-0.0002	0.0010	-090.0	-0.0006
039	0.632	0.501	00.11	0.1314	0.0426	0.0360	-0.1316	-0.0314	0.0171	0.0013	00.11	04.01	0.0439	0.0044	-0.0013	-090.1	-0.0464
040	0.629	0.501	00.11	0.1302	0.0464	0.0340	-0.1304	-0.0318	0.0169	0.0012	00.11	02.00	0.0217	0.0019	-0.0001	-090.1	-0.0229
041	0.632	0.502	00.11	0.1299	0.0476	0.0342	-0.1301	-0.0328	0.0168	0.0011	00.11	01.00	0.0111	0.0007	0.0005	-090.0	-0.0118
042	0.629	0.501	00.11	0.1295	0.0484	0.0341	-0.1296	-0.0329	0.0167	0.0010	00.11	00.00	0.0008	-0.0003	0.0009	-090.0	-0.0009

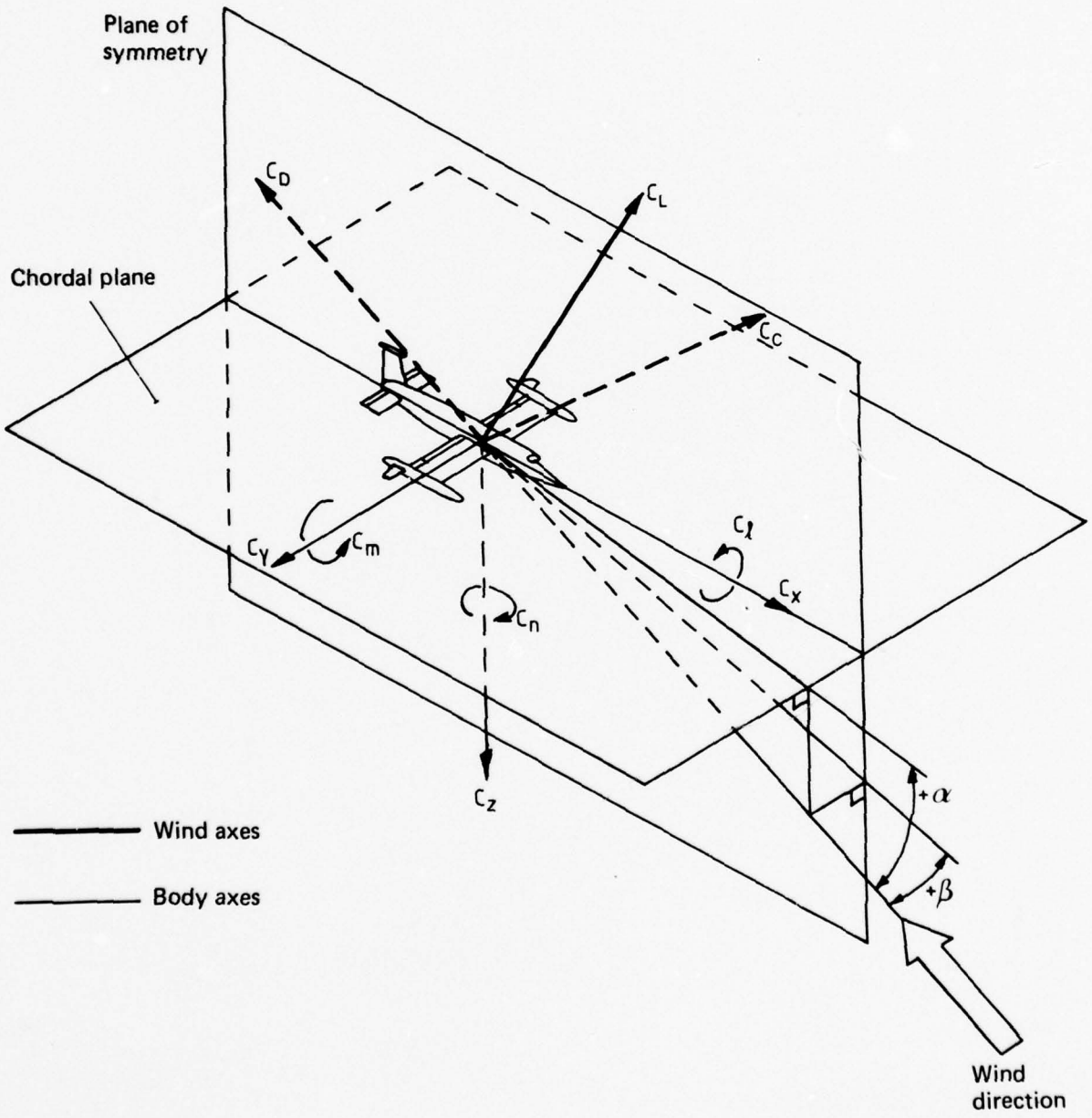


FIG. 1 FORCE AND MOMENT AXES SYSTEM

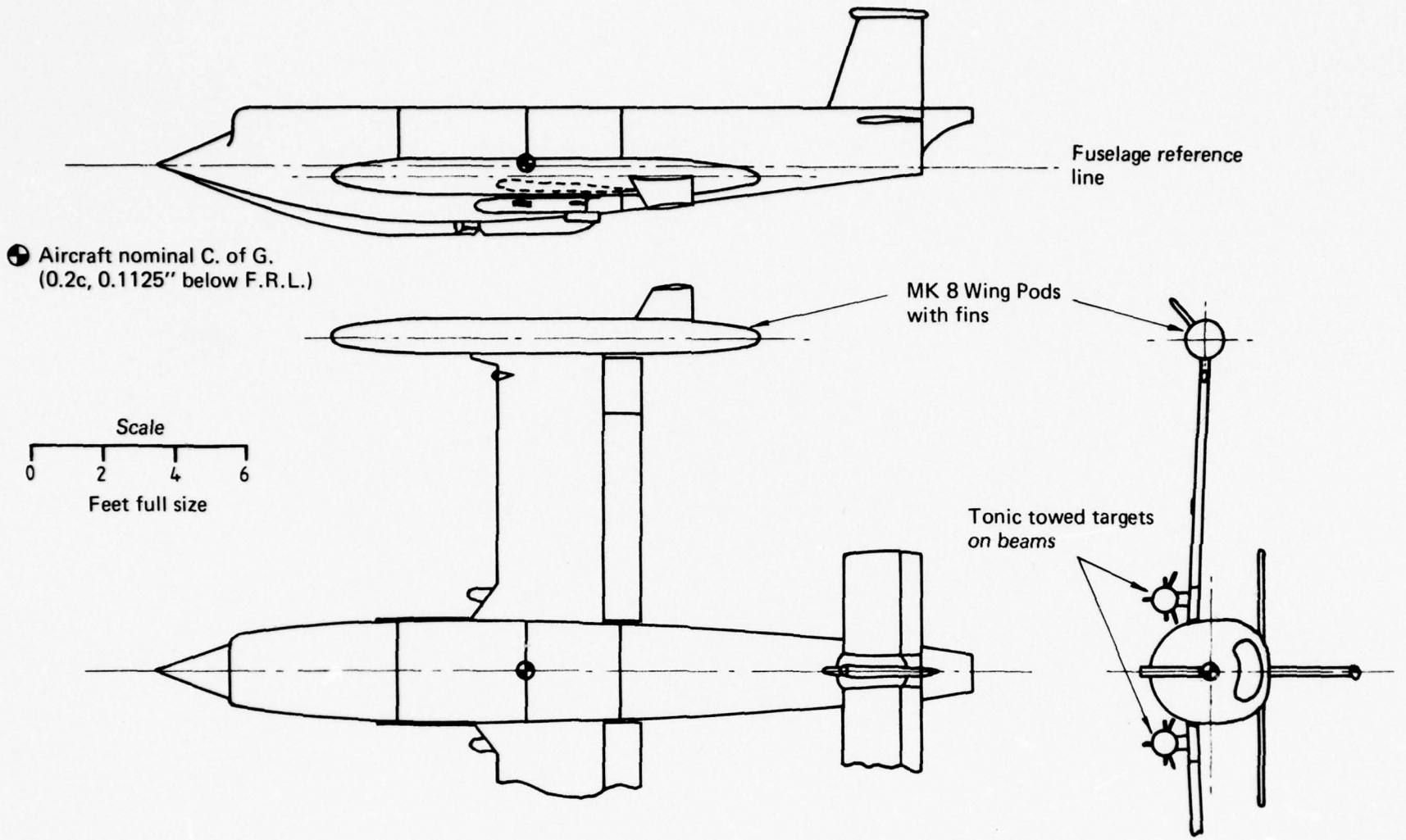


FIG. 2 SKETCH OF MODEL

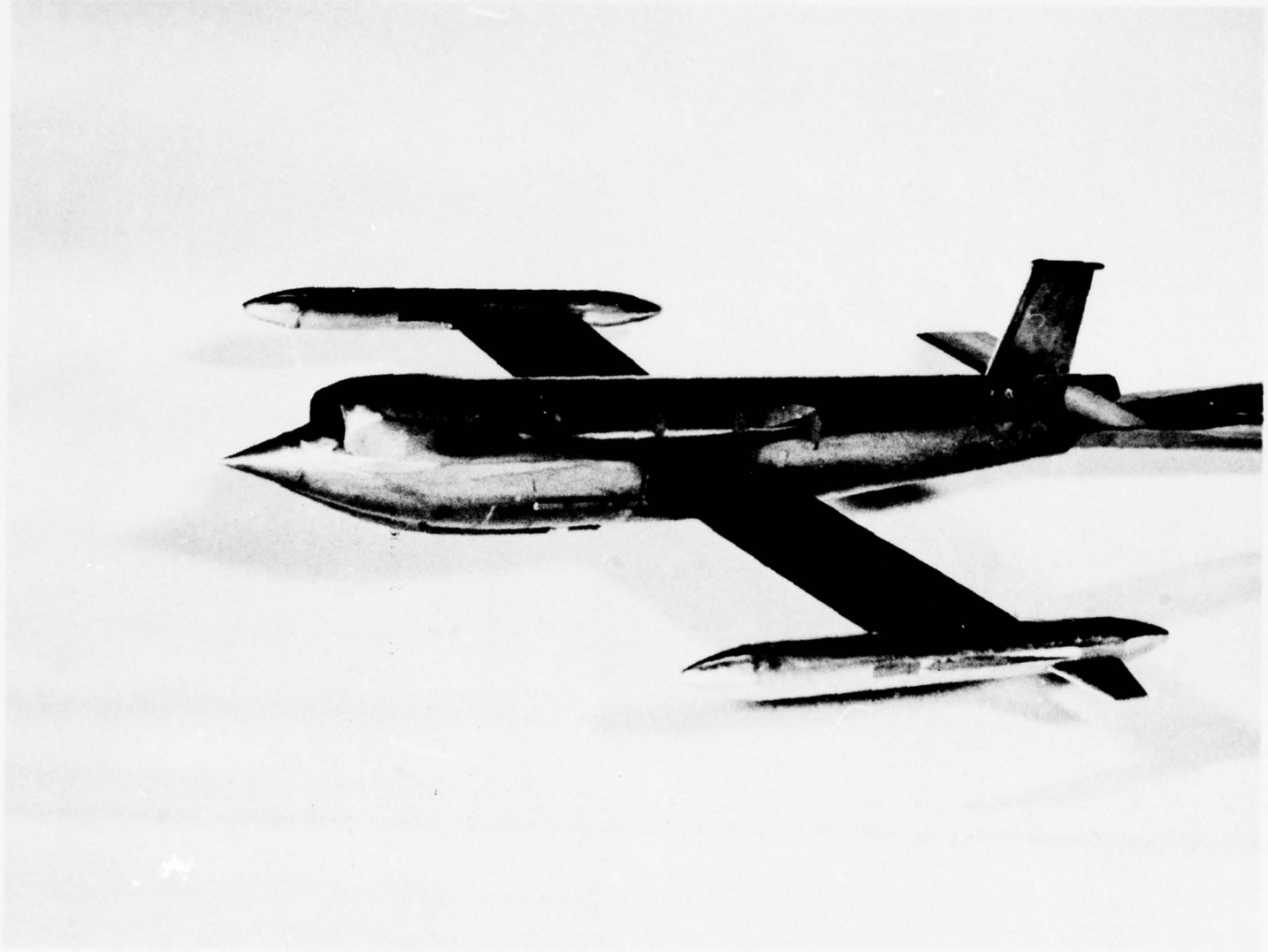


FIG. 3 PHOTOGRAPH OF MODEL – CONFIGURATION 'A'



FIG. 4 PHOTOGRAPH OF MODEL – CONFIGURATION 'B'



FIG. 5 PHOTOGRAPH OF MODEL – CONFIGURATION 'C'

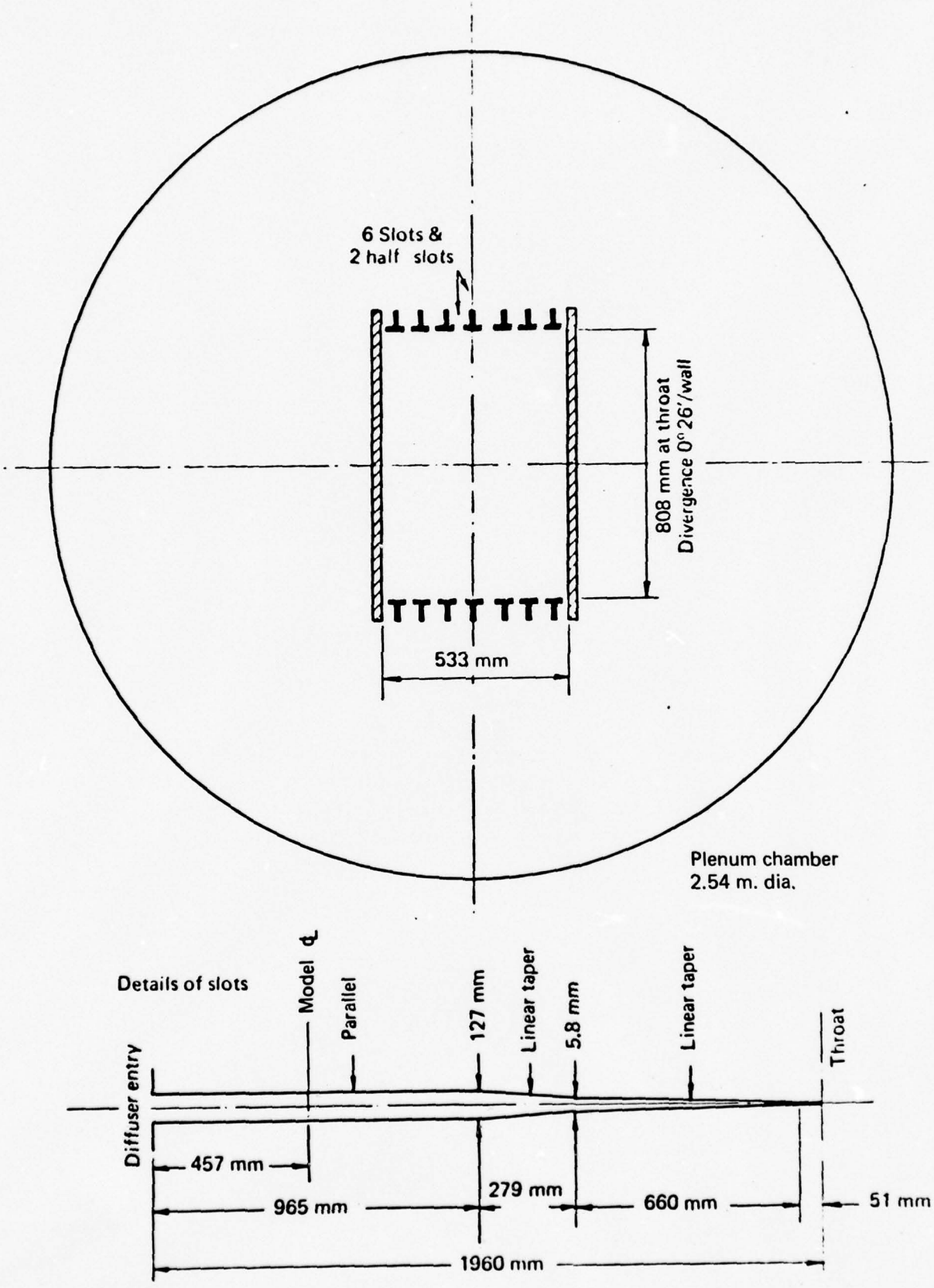
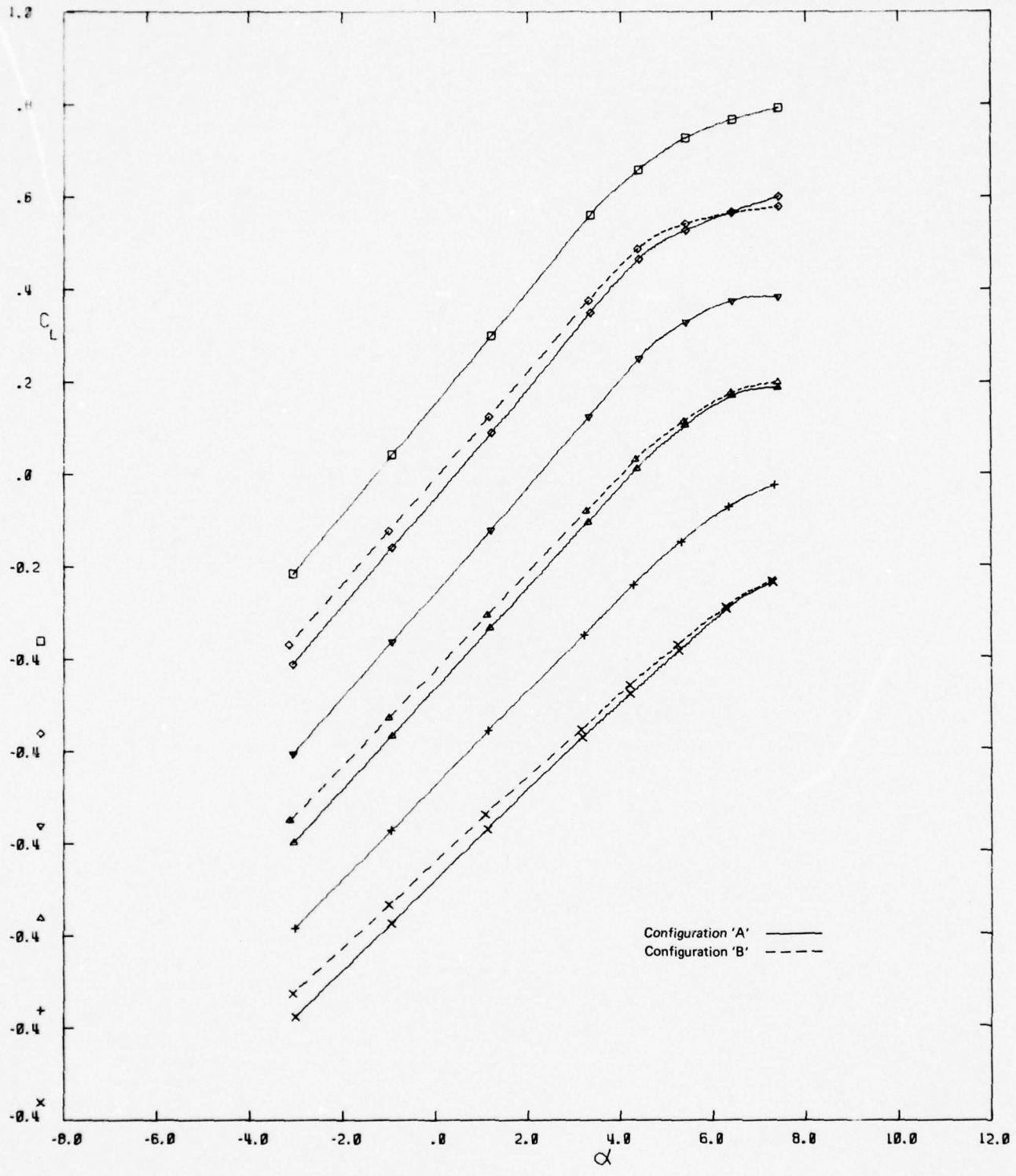


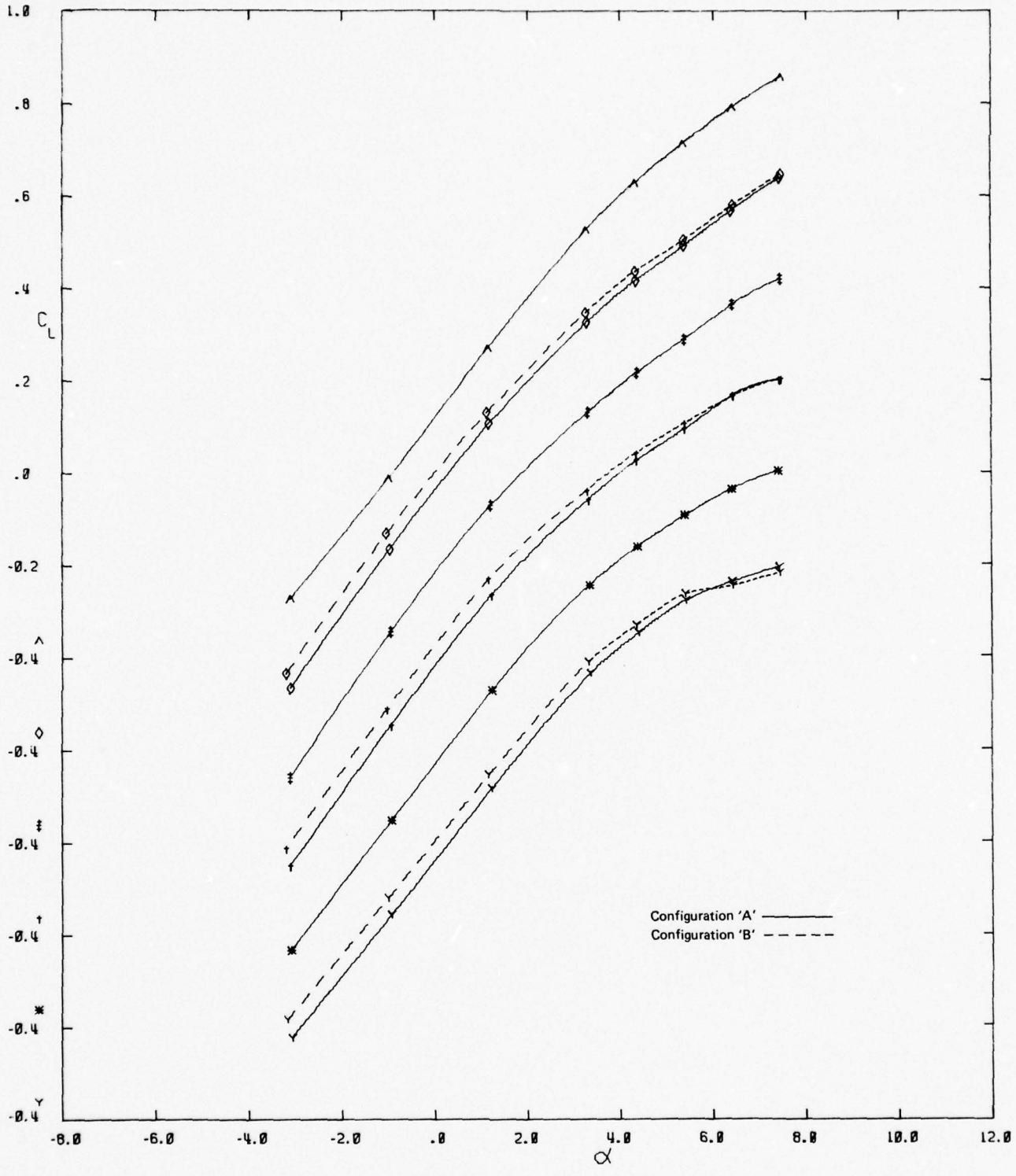
FIG. 6 DETAILS OF SLOTTED TEST SECTION



SYMBOL	M
×	.50
+	.60
△	.70
▽	.75
◇	.78
□	.80

REY = .465 *10⁶

FIG. 7a VARIATION OF LIFT COEFFICIENT WITH INCIDENCE
COMPARISON OF CONFIGURATIONS 'A' AND 'B'



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◇	.90
^	.92

REY = .465 *10^6

FIG. 7b VARIATION OF LIFT COEFFICIENT WITH INCIDENCE
COMPARISON OF CONFIGURATIONS 'A' AND 'B'

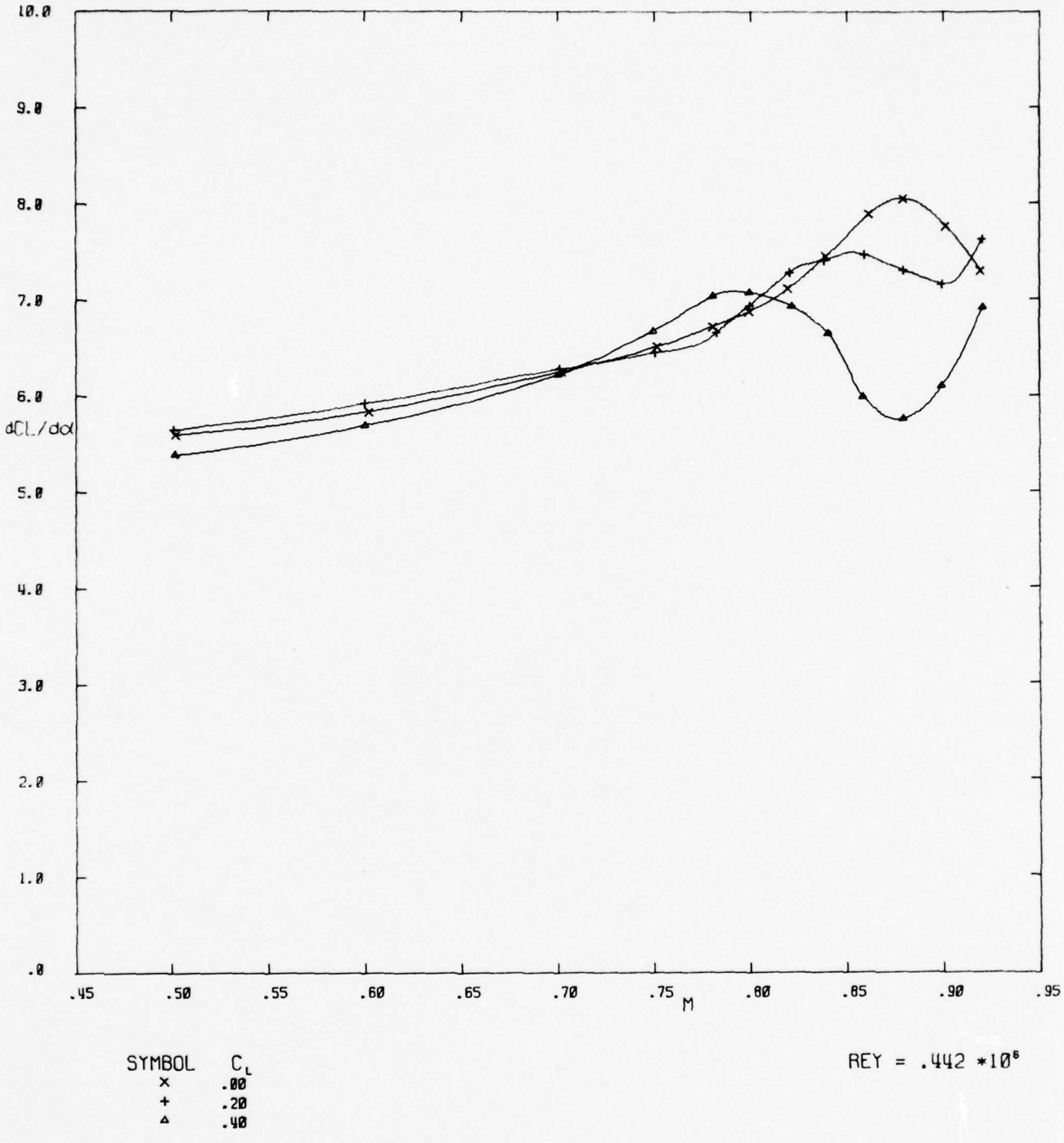


FIG. 8a VARIATION OF LIFT CURVE SLOPE WITH MACH NUMBER
CONFIGURATION 'A' - CLEAN AIRCRAFT

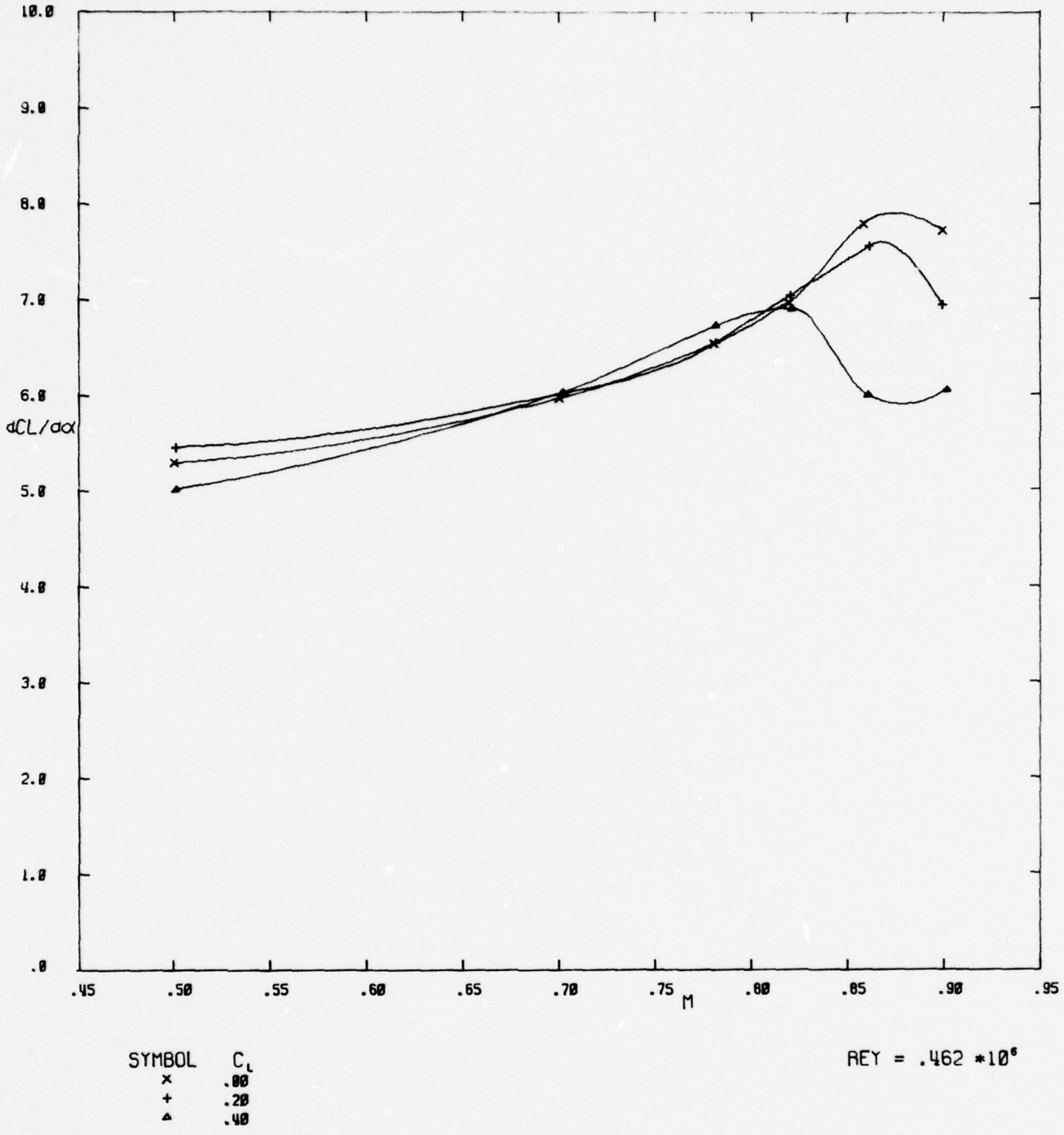
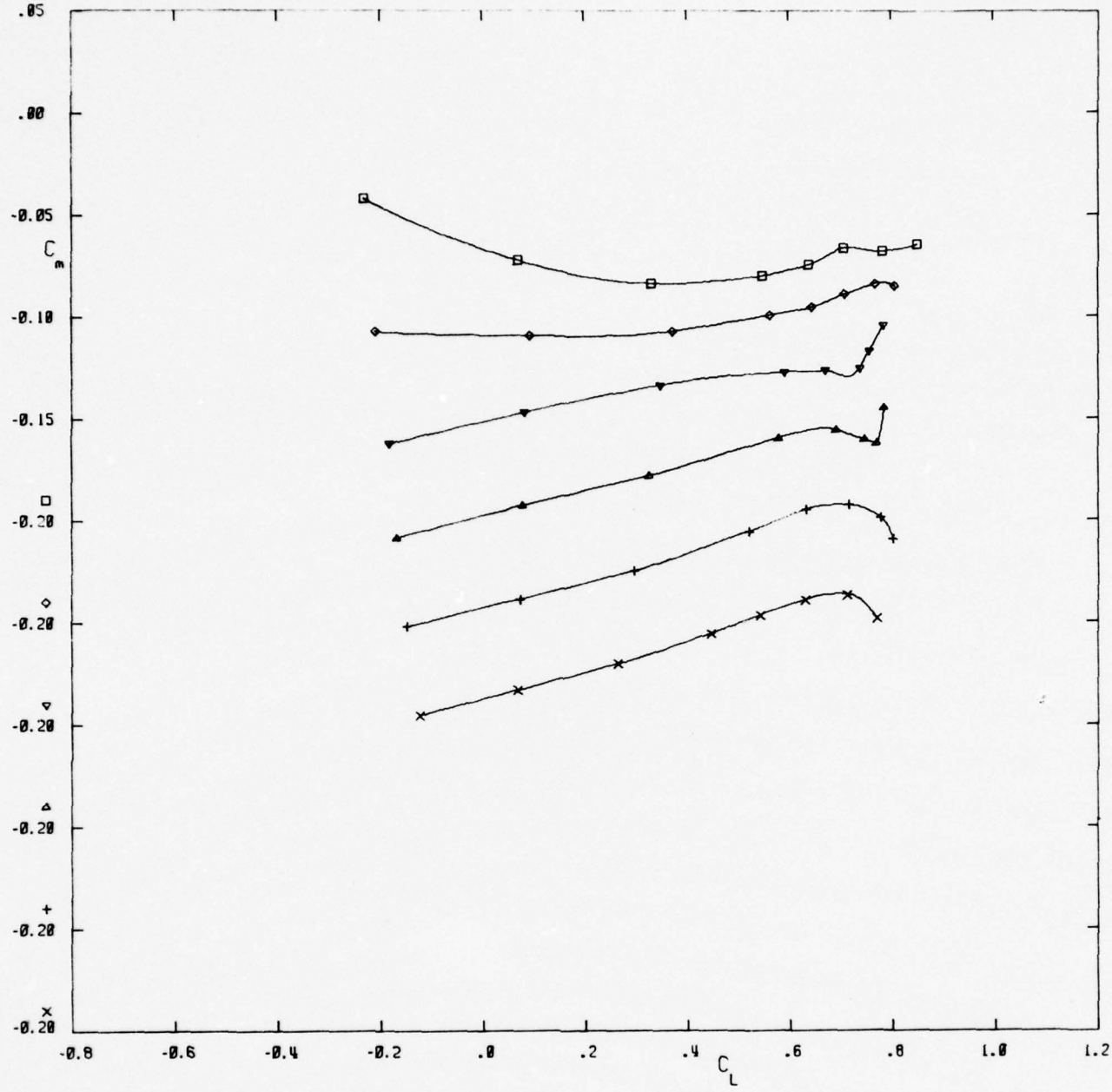


FIG 8b VARIATION OF LIFT CURVE SLOPE WITH MACH NUMBER
CONFIGURATION 'B' - TAIL OFF



SYMBOL	M
×	.50
+	.70
△	.78
▽	.82
◇	.86
□	.90

REY = .462 *10^6

FIG. 9 VARIATION OF PITCHING MOMENT COEFFICIENT WITH LIFT COEFFICIENT CONFIGURATION 'B' - TAIL OFF

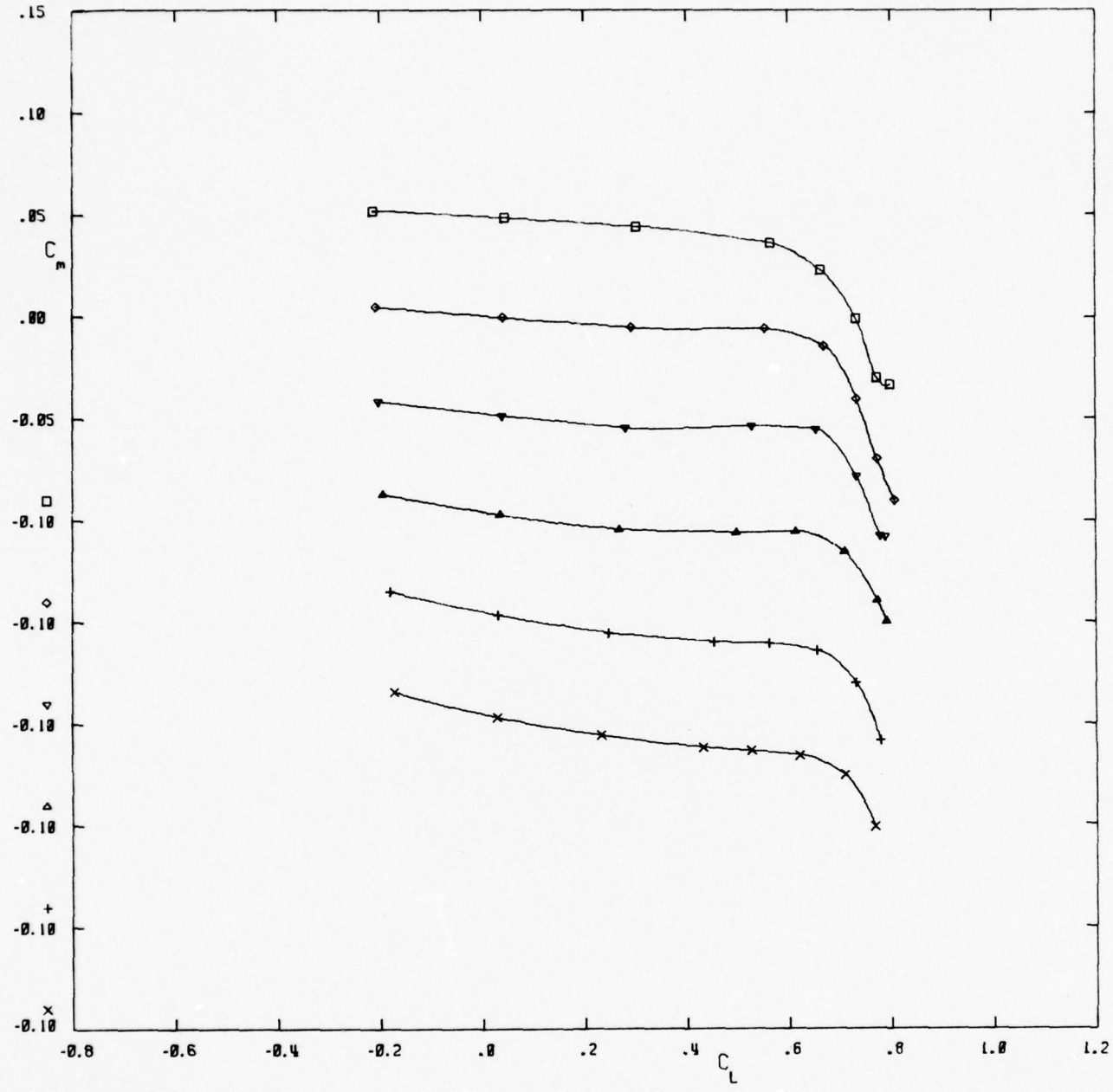
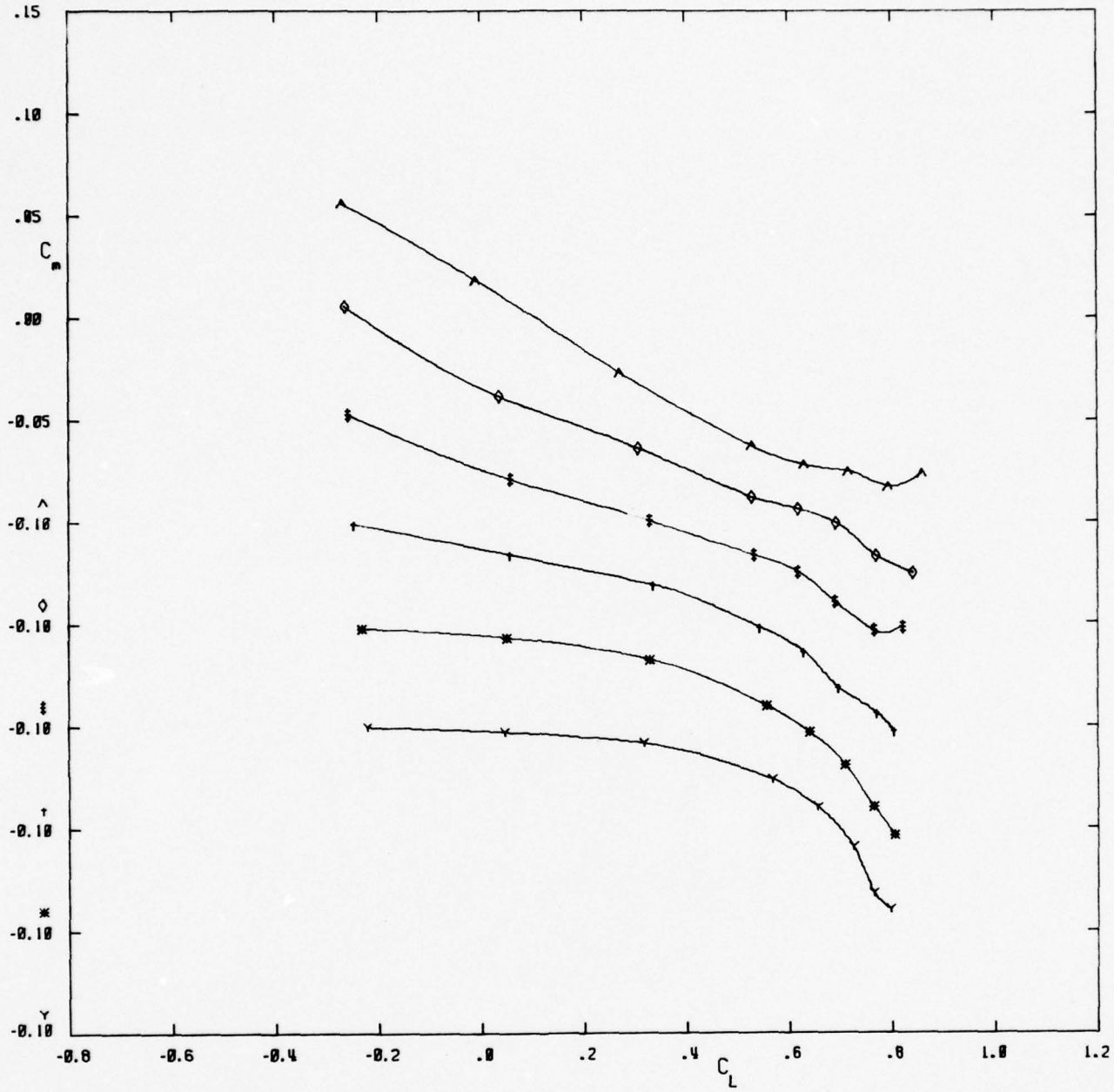


FIG. 10a VARIATION OF PITCHING MOMENT COEFFICIENT WITH LIFT COEFFICIENT CONFIGURATION 'A' - CLEAN AIRCRAFT



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .442 *10^6

FIG 10b VARIATION OF PITCHING MOMENT COEFFICIENT WITH LIFT COEFFICIENT CONFIGURATION 'A' - CLEAN AIRCRAFT

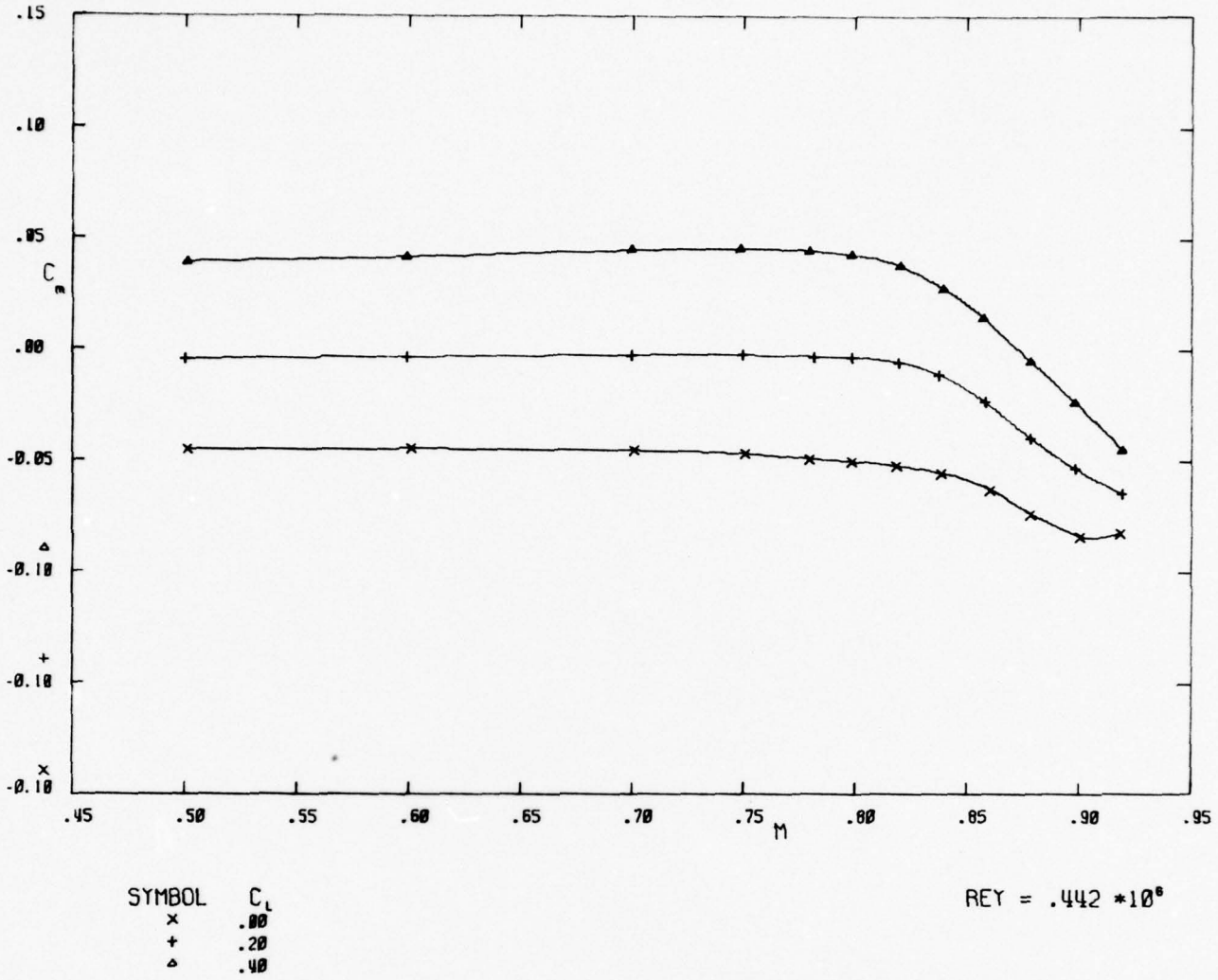


FIG. 11a VARIATION OF PITCHING MOMENT COEFFICIENT WITH MACH NUMBER CONFIGURATION 'A' - CLEAN AIRCRAFT

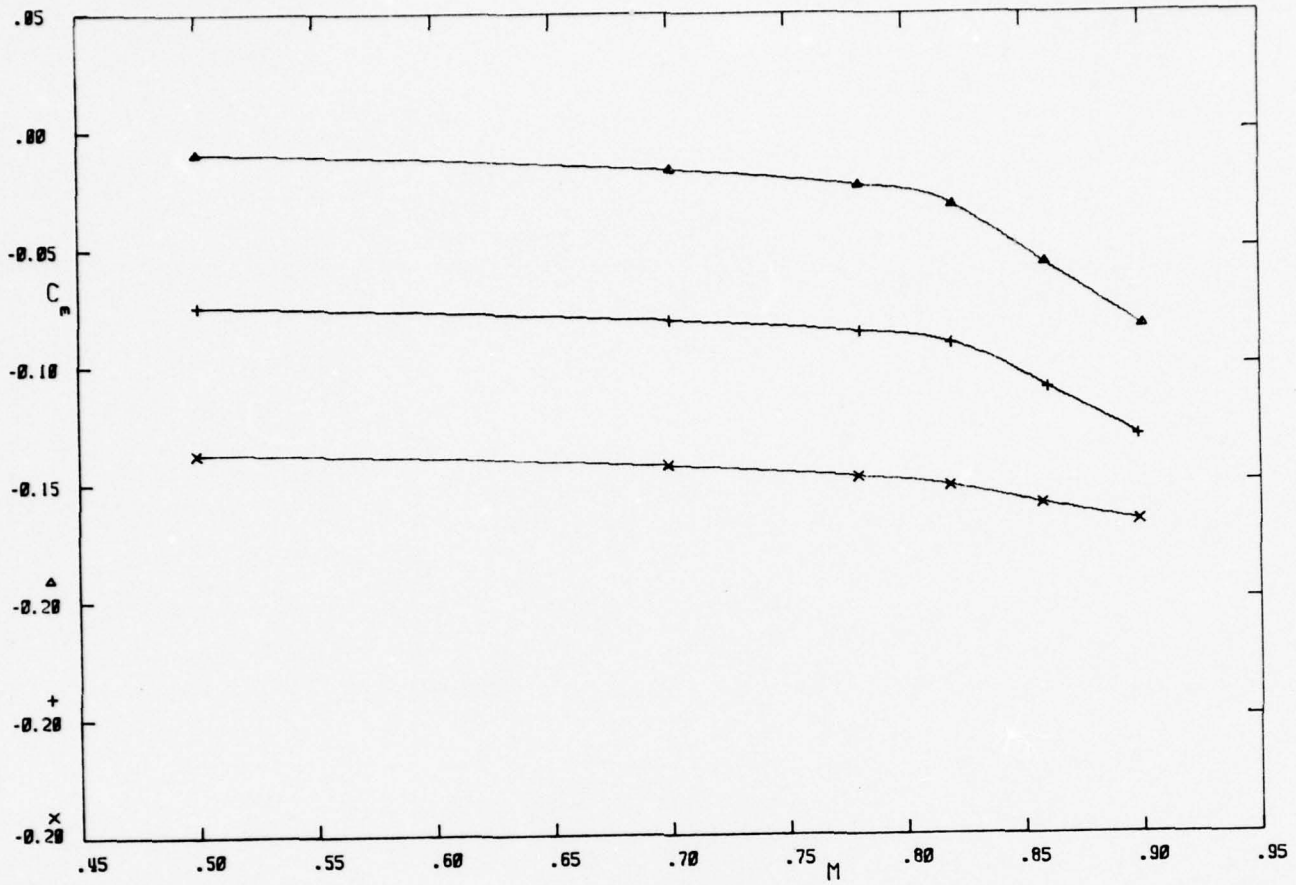


FIG. 11b VARIATION OF PITCHING MOMENT COEFFICIENT WITH MACH NUMBER CONFIGURATION 'B' - TAIL OFF

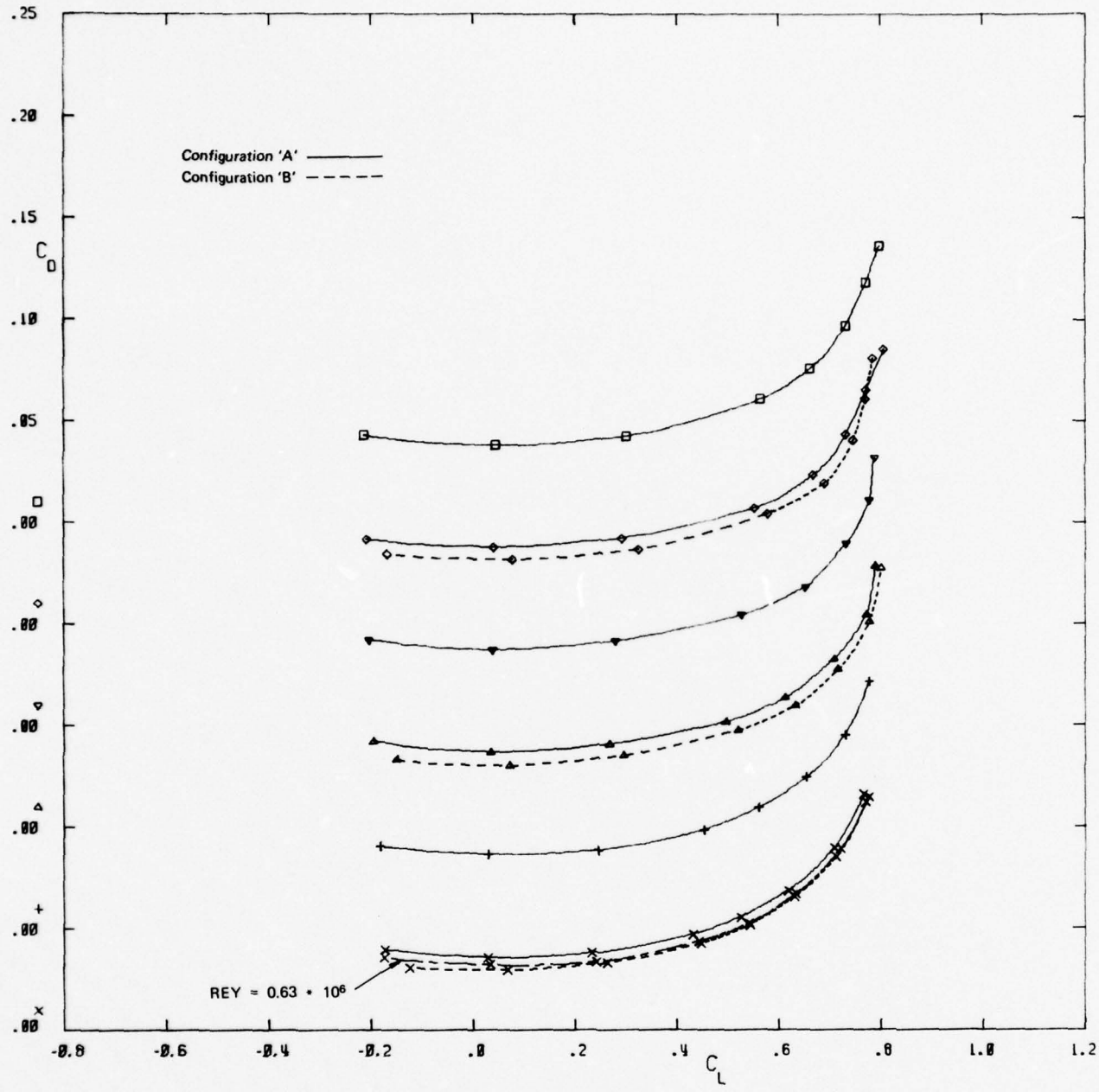
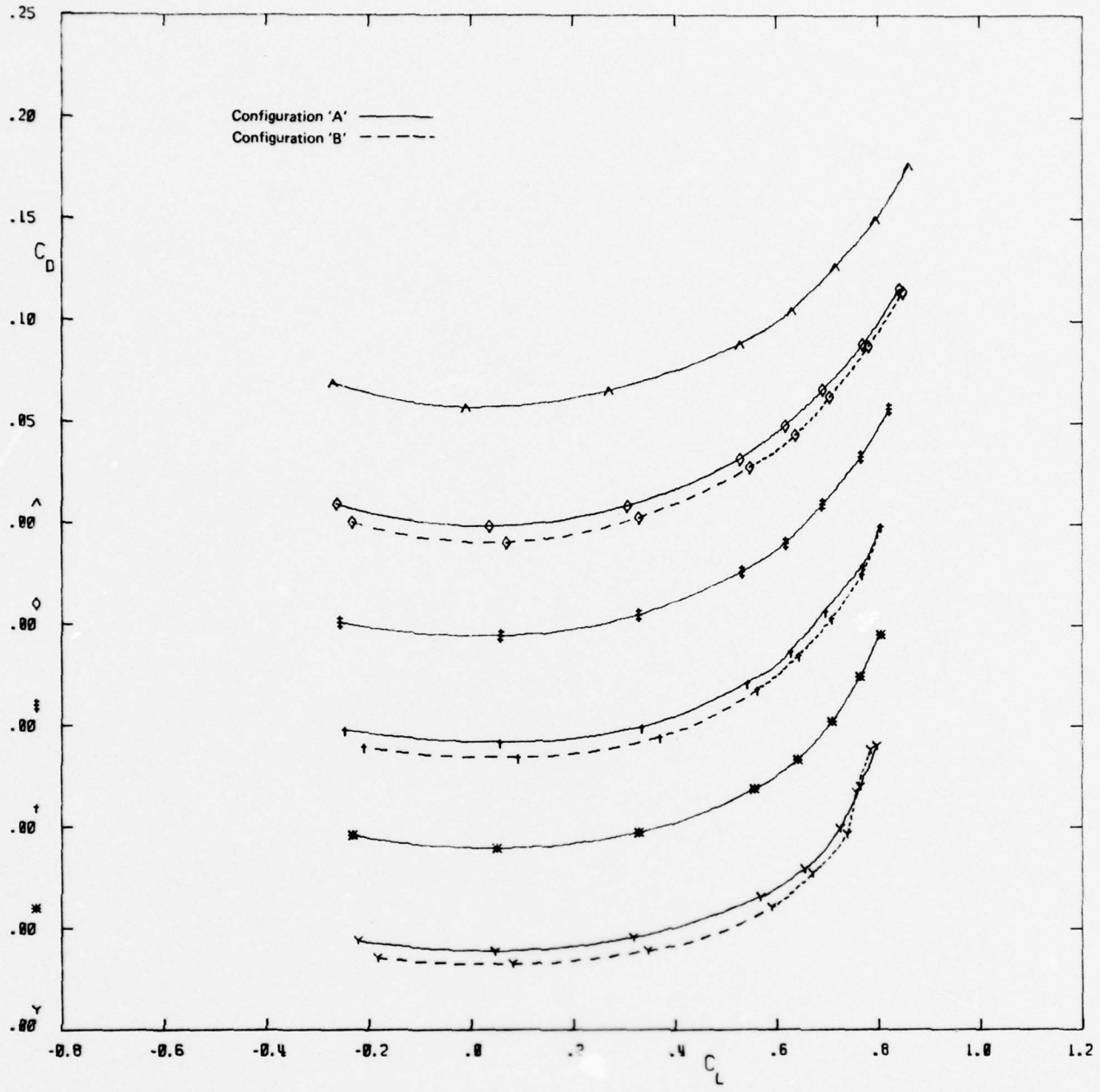


FIG. 12a VARIATION OF DRAG COEFFICIENT WITH LIFT COEFFICIENT
COMPARISON OF CONFIGURATIONS 'A' AND 'B'
EFFECT OF REYNOLDS NUMBER



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .442 *10^6

FIG. 12b VARIATION OF DRAG COEFFICIENT WITH LIFT COEFFICIENT
COMPARISON OF CONFIGURATIONS 'A' AND 'B'

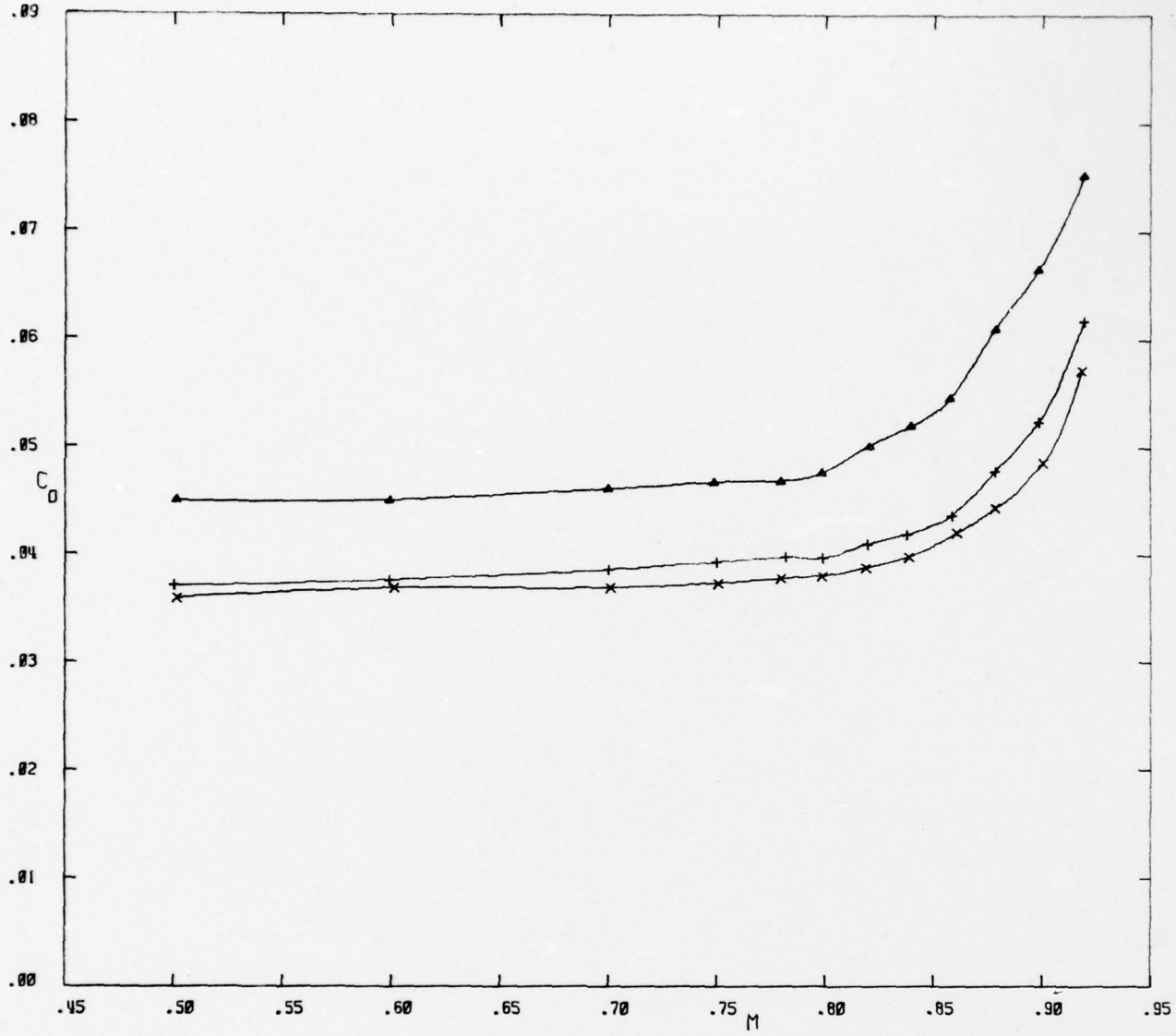


FIG. 13 VARIATION OF DRAG COEFFICIENT WITH MACH NUMBER
CONFIGURATION 'A' - CLEAN AIRCRAFT

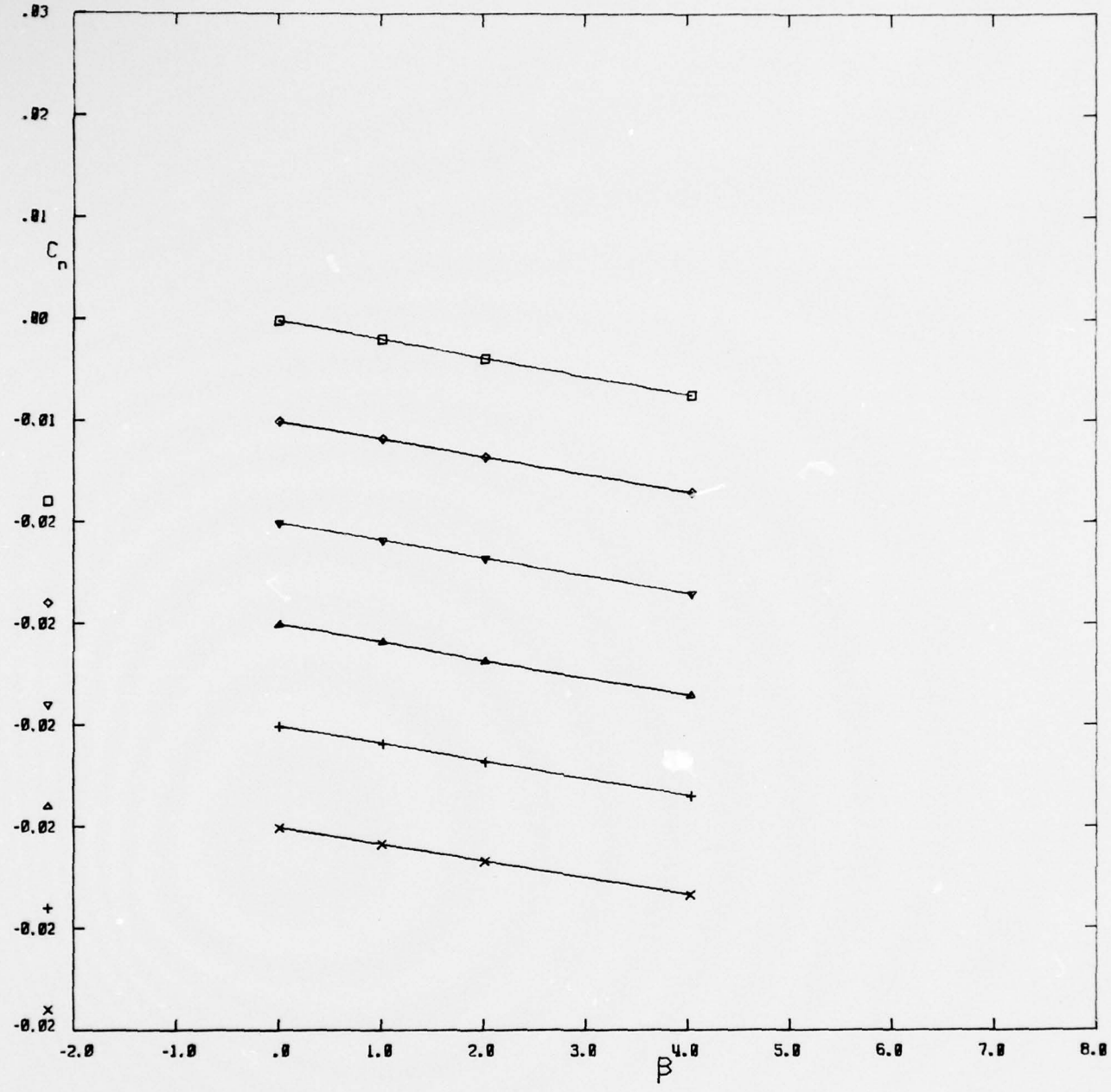
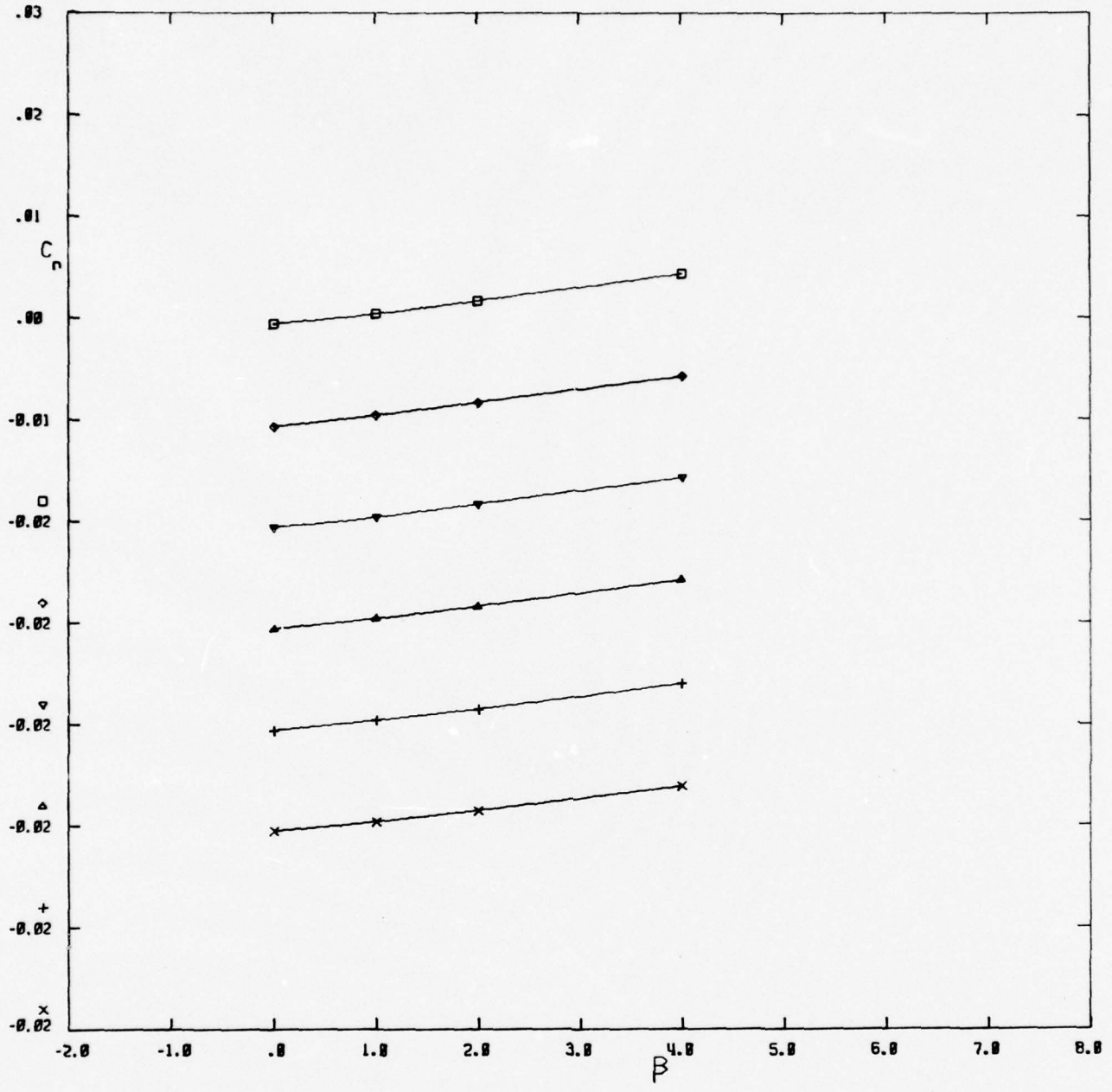


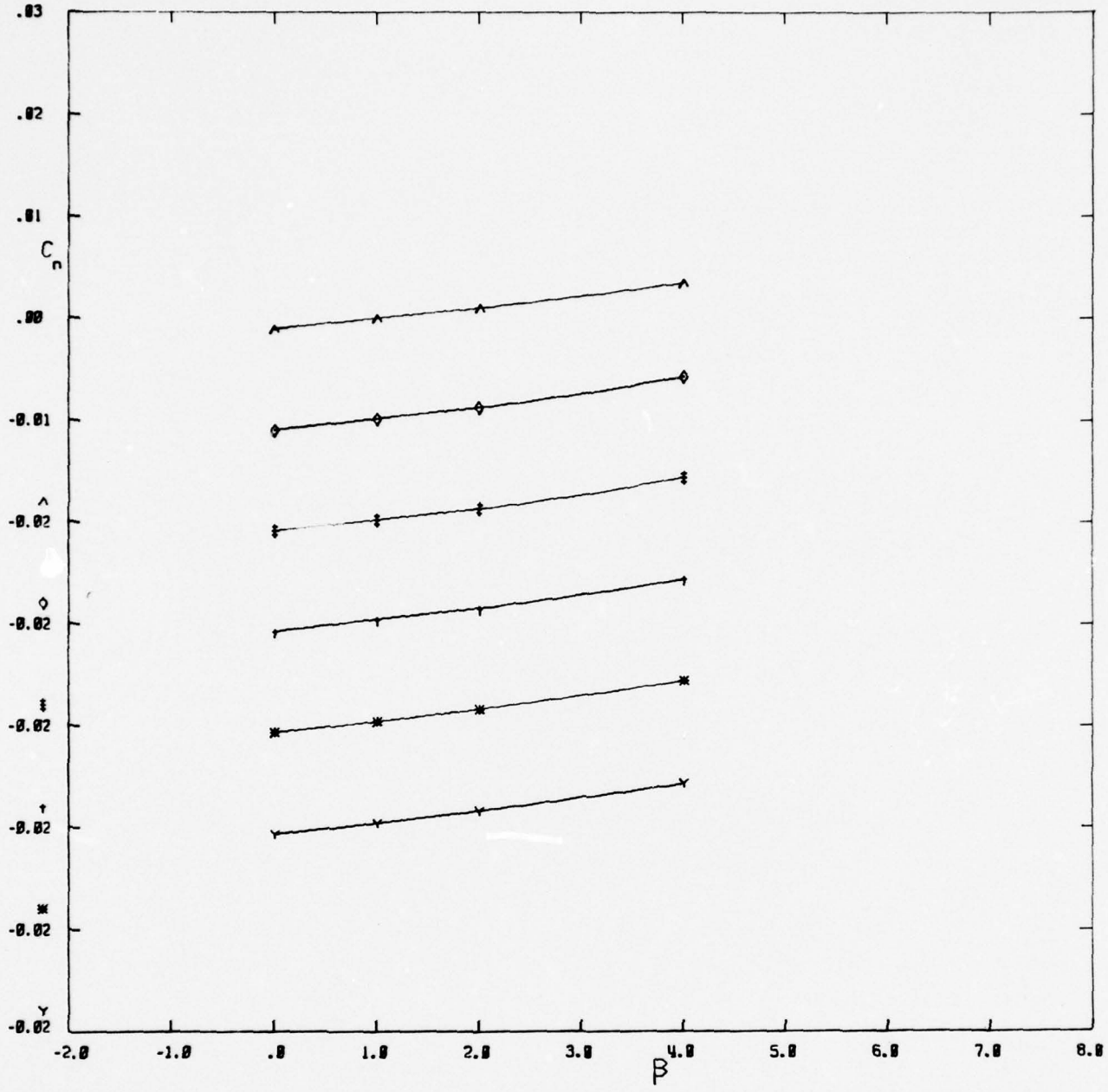
FIG. 14 VARIATION OF YAWING MOMENT COEFFICIENT WITH ANGLE OF SIDE SLIP CONFIGURATION 'B' - TAIL OFF



SYMBOL	M
×	.50
+	.60
△	.70
▽	.75
◇	.78
□	.80

REY = .450 *10⁶

FIG. 15a VARIATION OF YAWING MOMENT COEFFICIENT WITH ANGLE OF SIDE SLIP CONFIGURATION 'A' - CLEAN AIRCRAFT



SYMBOL	M
Y	.82
✱	.84
†	.86
‡	.88
◇	.90
^	.92

REY = .450 *10⁶

FIG. 15b VARIATION OF YAWING MOMENT COEFFICIENT WITH ANGLE OF SIDE SLIP CONFIGURATION 'A' - CLEAN AIRCRAFT

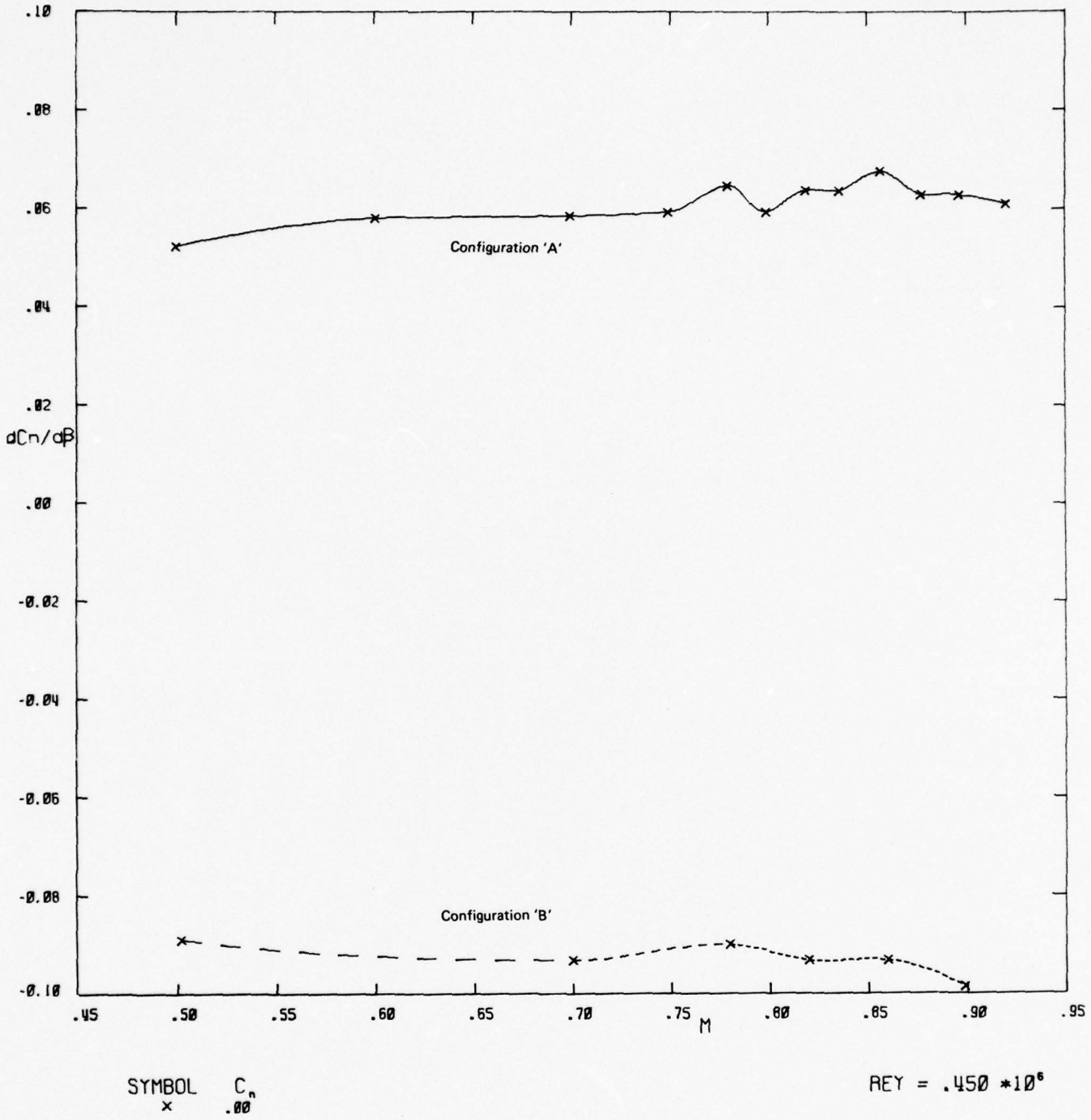
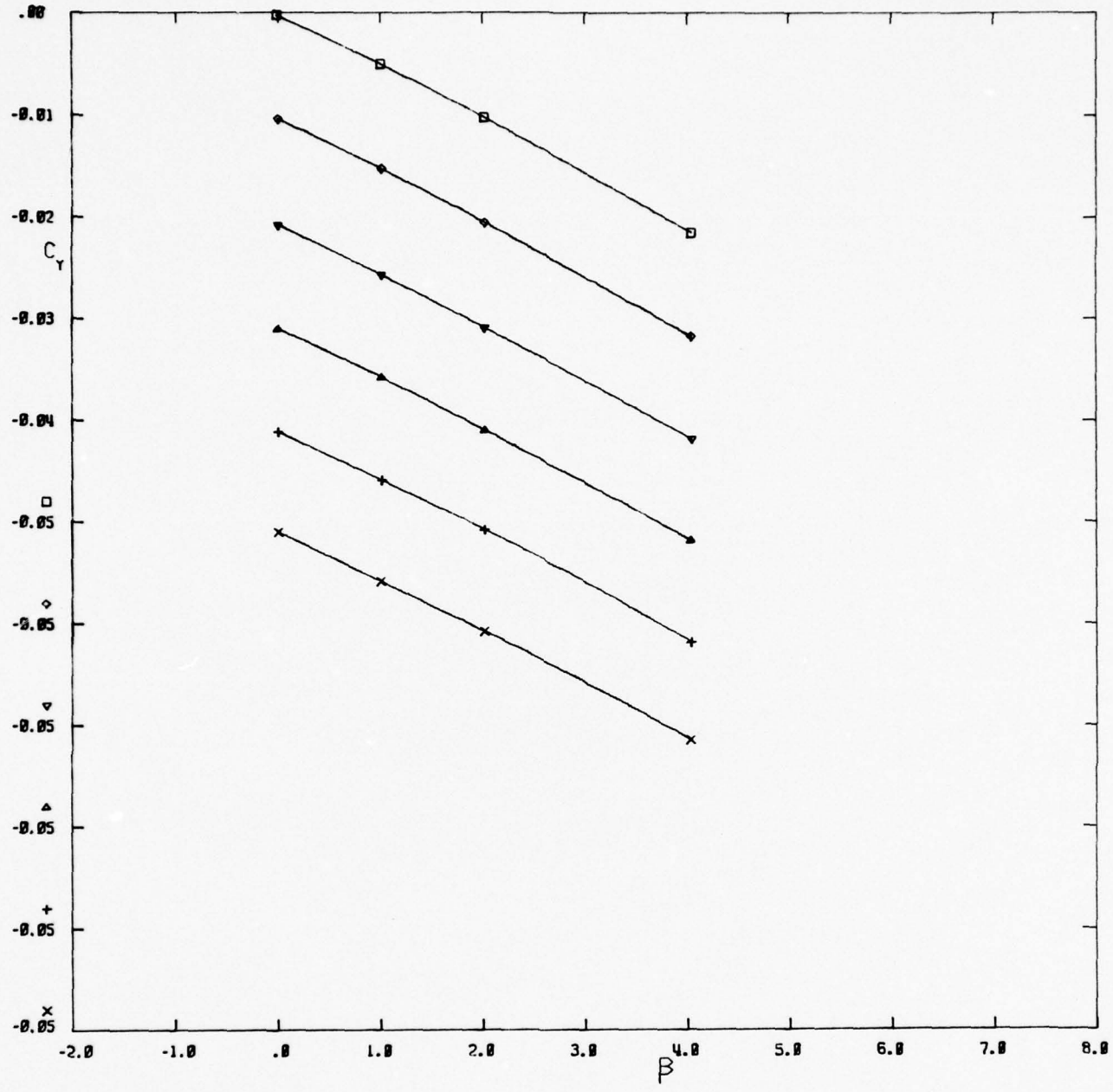


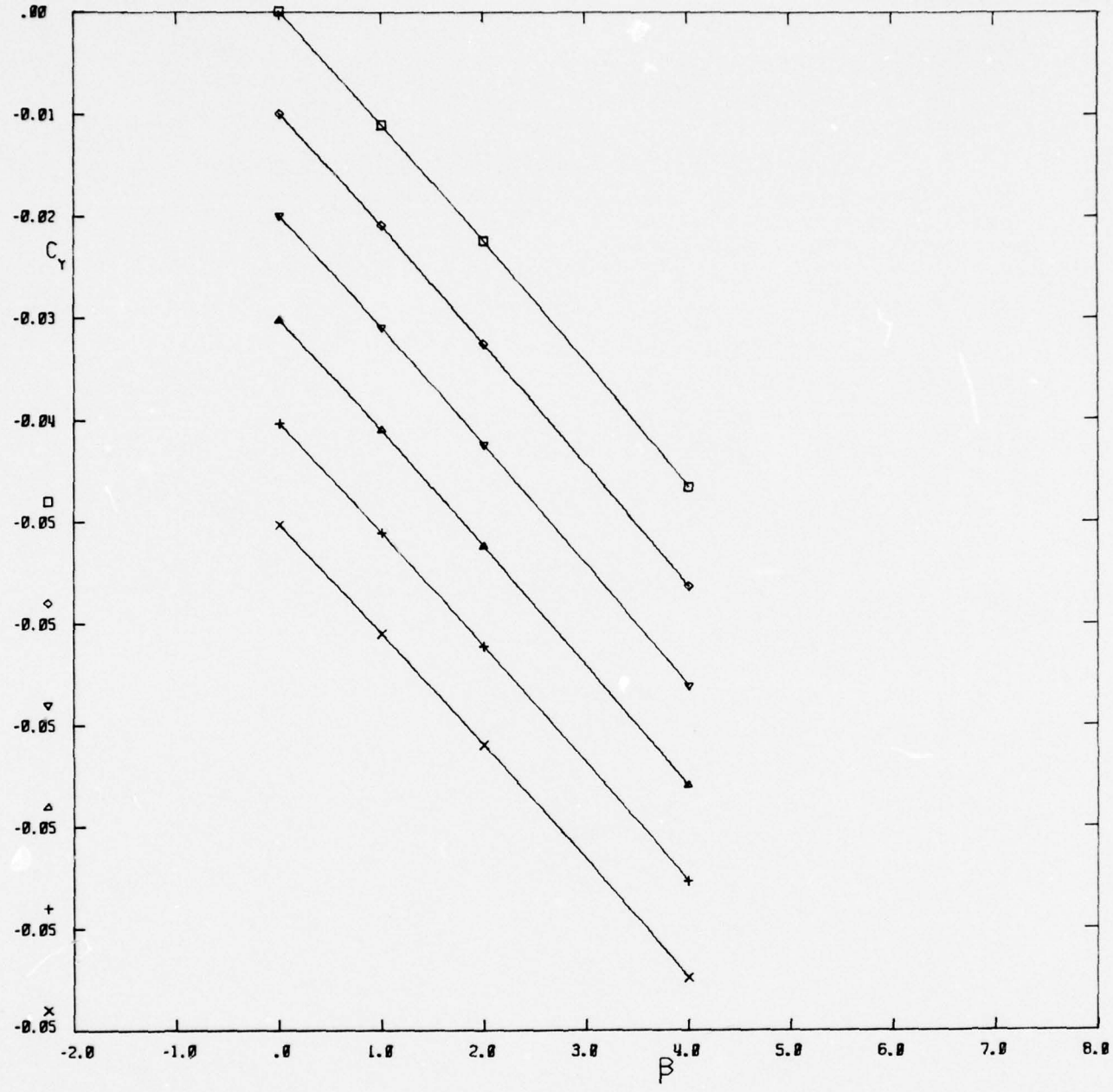
FIG. 16 VARIATION OF WEATHERCOCK STABILITY DERIVATIVE WITH MACH NUMBER COMPARISON OF CONFIGURATIONS 'A' AND 'B'



SYMBOL	M
×	.50
+	.70
△	.78
▽	.82
◇	.86
□	.90

REY = .447 *10^6

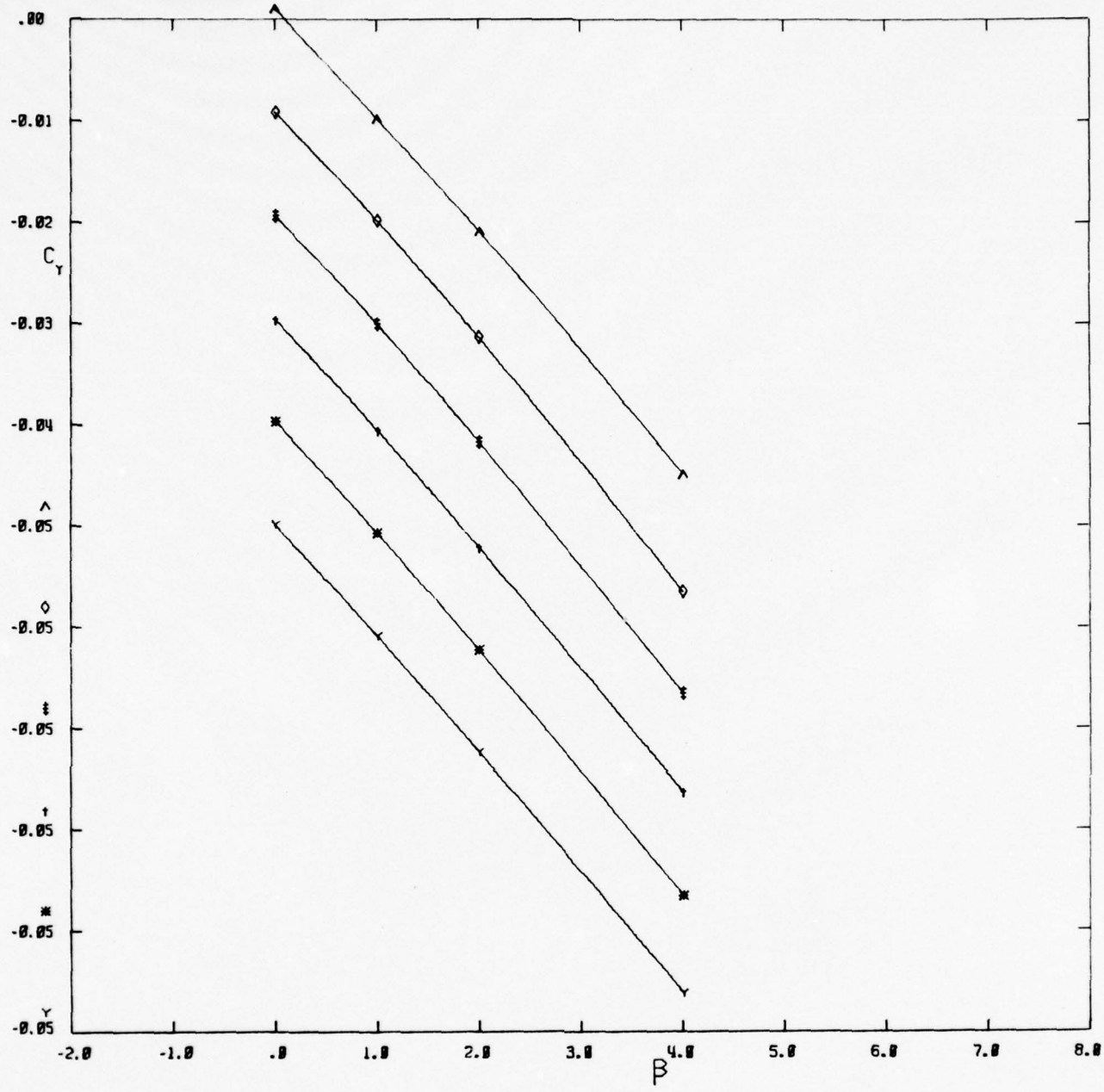
FIG. 17 VARIATION OF SIDE FORCE COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'B' - TAIL OFF



SYMBOL	M
×	.50
+	.60
△	.70
▽	.75
◇	.78
□	.80

REY = .450 *10^6

FIG. 18a VARIATION OF SIDE FORCE COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' - CLEAN AIRCRAFT



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .450 *10^6

FIG. 18b VARIATION OF SIDE FORCE COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' - CLEAN AIRCRAFT

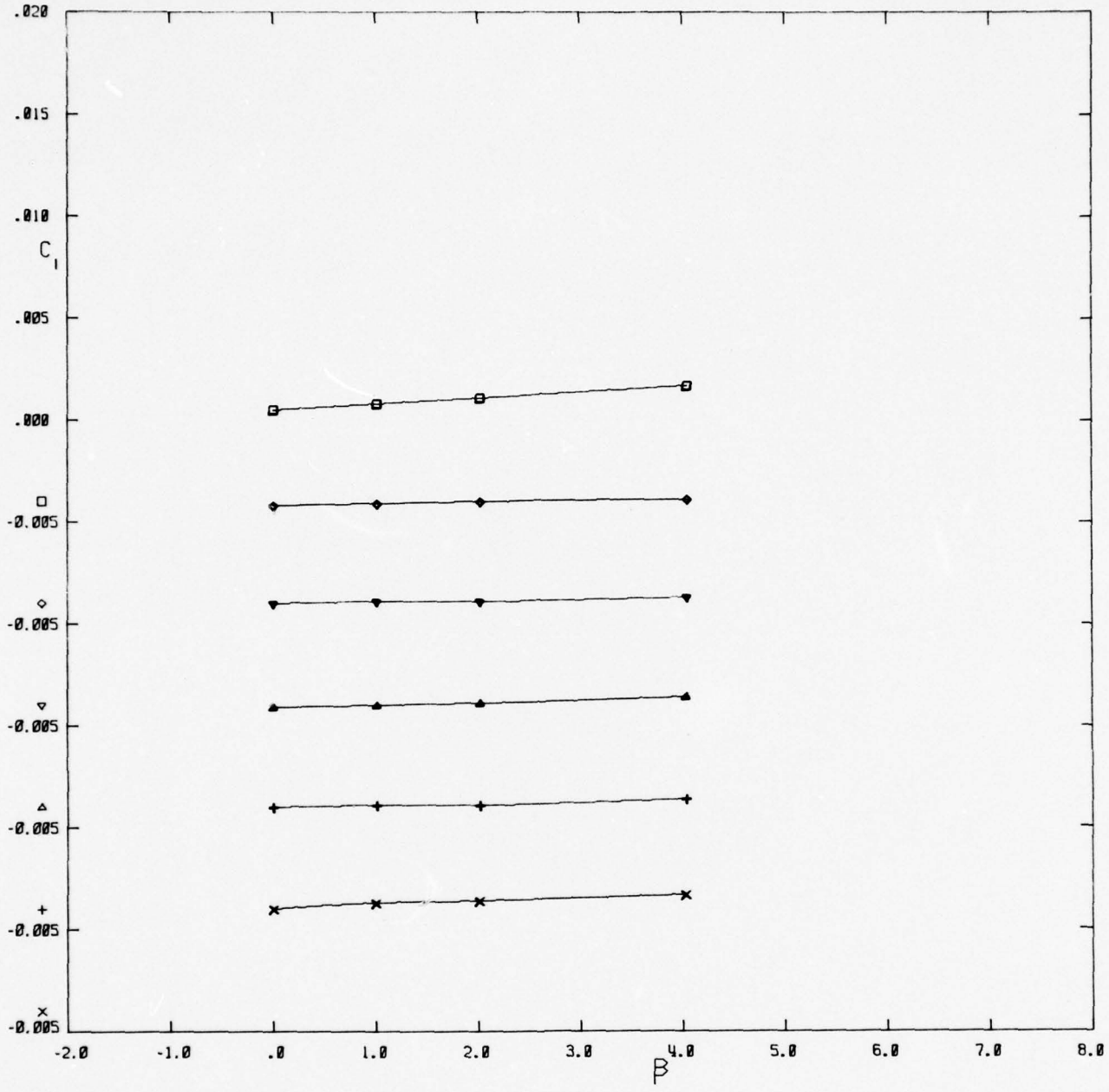
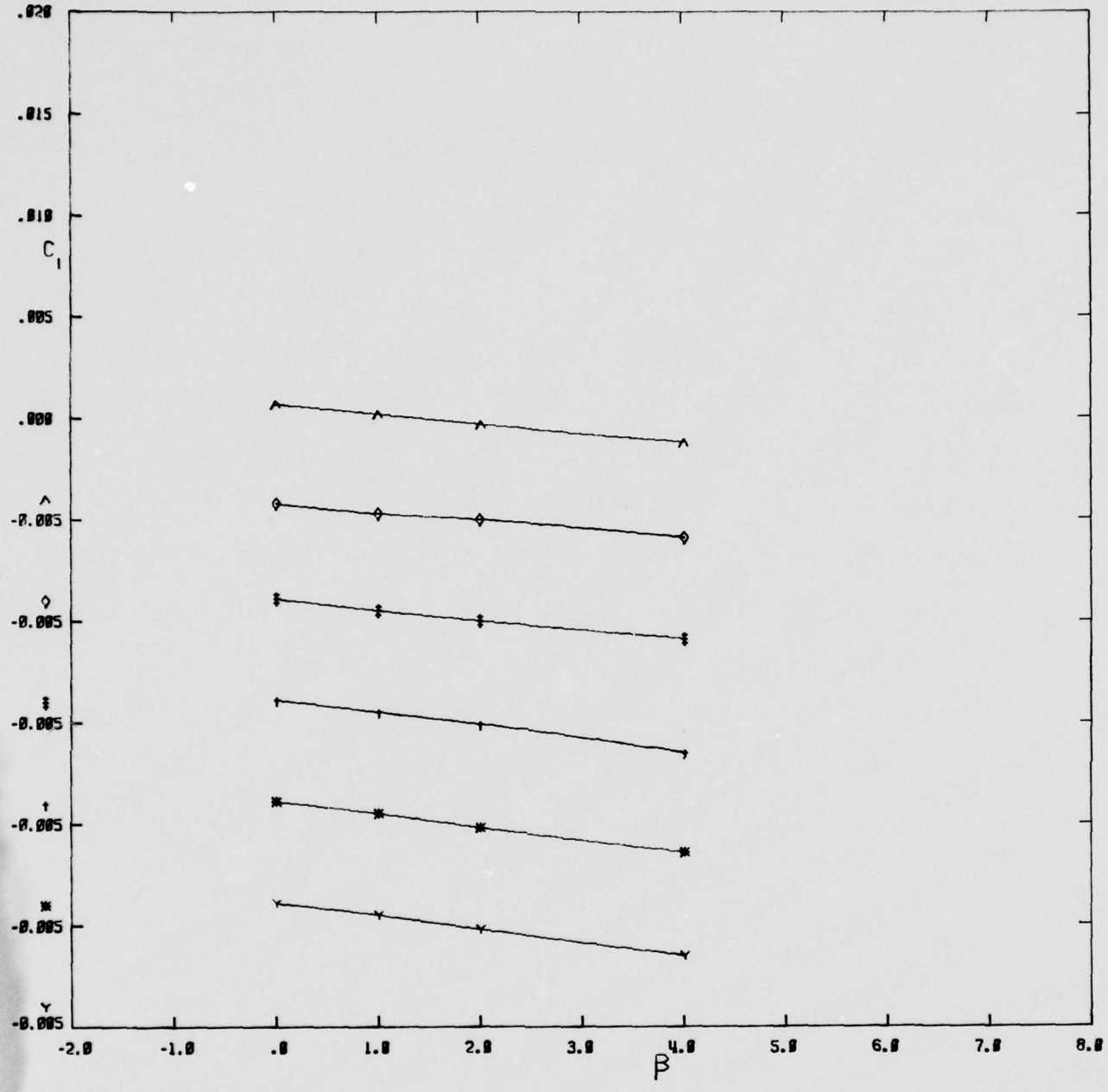


FIG. 19 VARIATION OF ROLLING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'B' - TAIL OFF



SYMBOL	M
Y	.82
✱	.84
↑	.86
‡	.88
◇	.90
^	.92

REY = .450 *10⁶

FIG. 20a VARIATION OF ROLLING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' - CLEAN AIRCRAFT

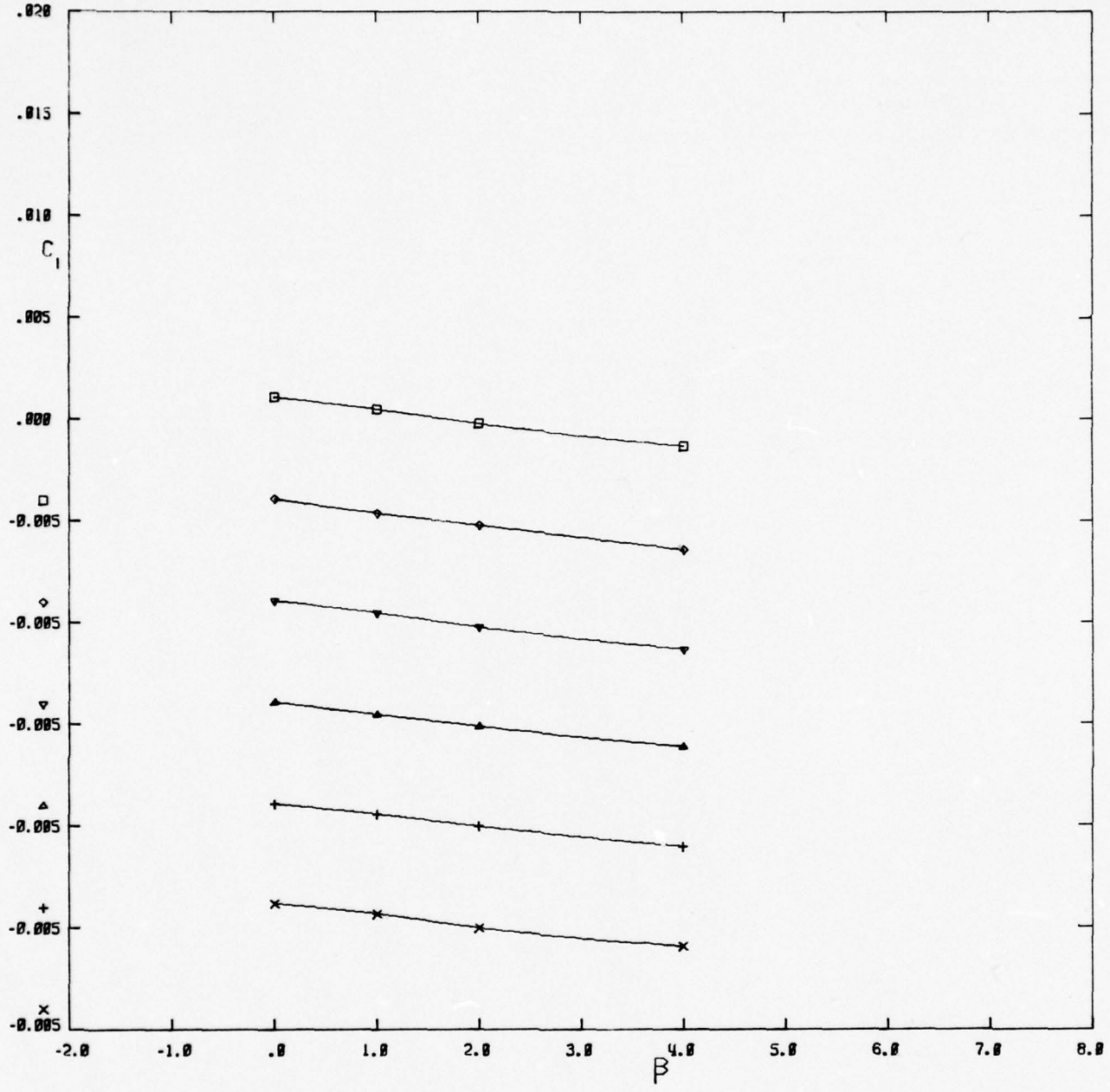


FIG. 20b VARIATION OF ROLLING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' - CLEAN AIRCRAFT

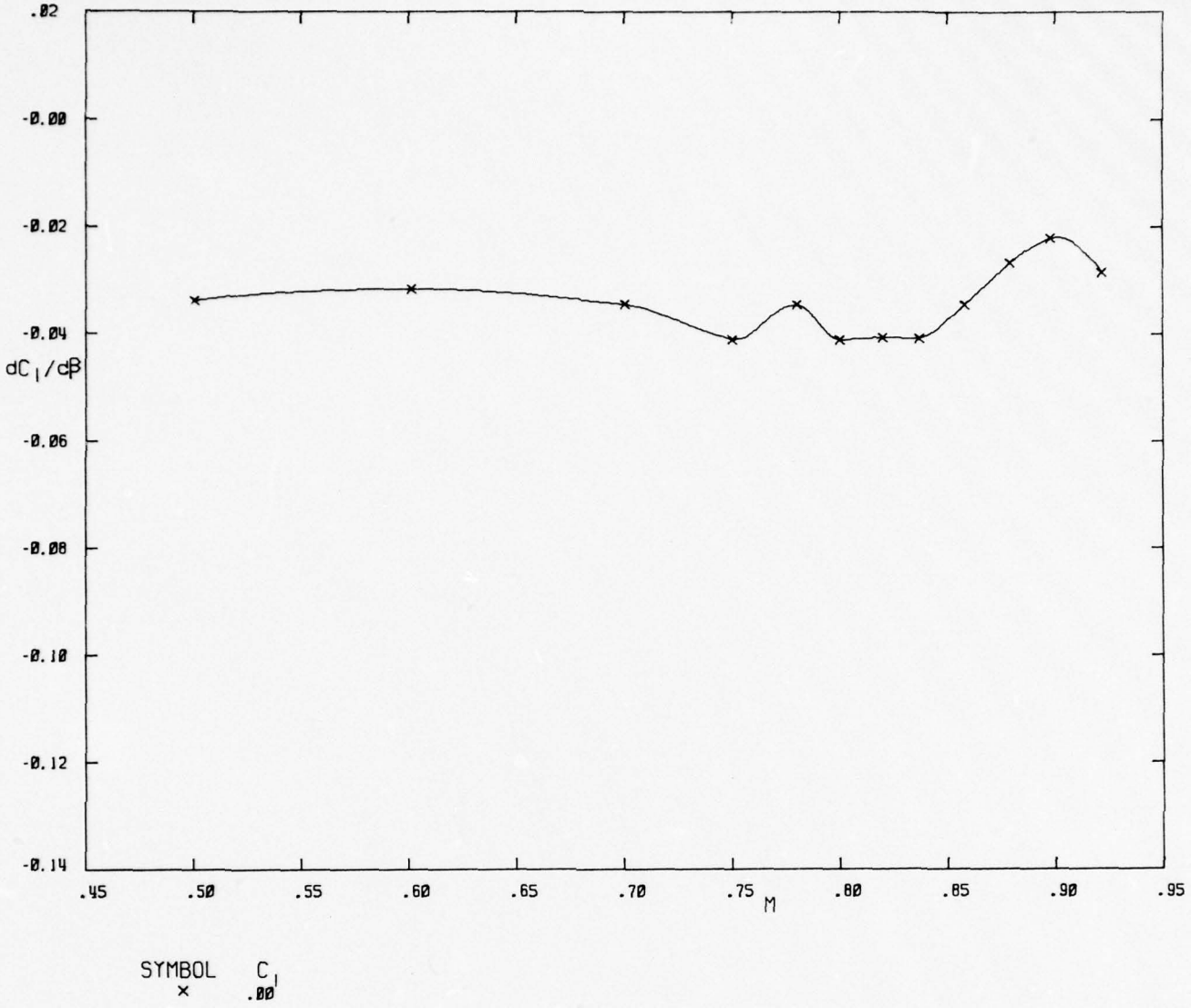


FIG. 21 VARIATION OF EFFECTIVE DIHEDRAL WITH MACH NUMBER
CONFIGURATION 'A' - CLEAN AIRCRAFT

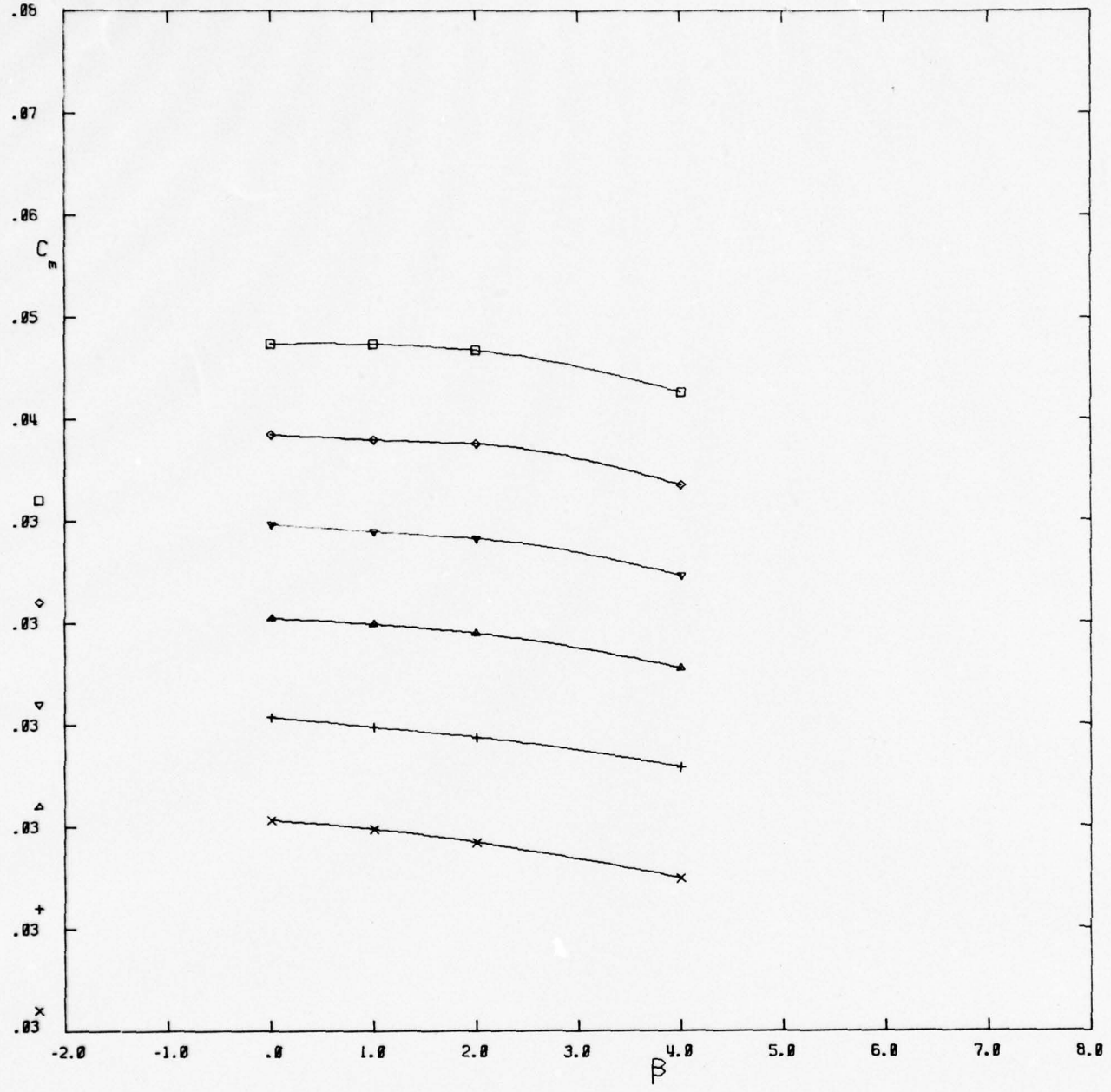
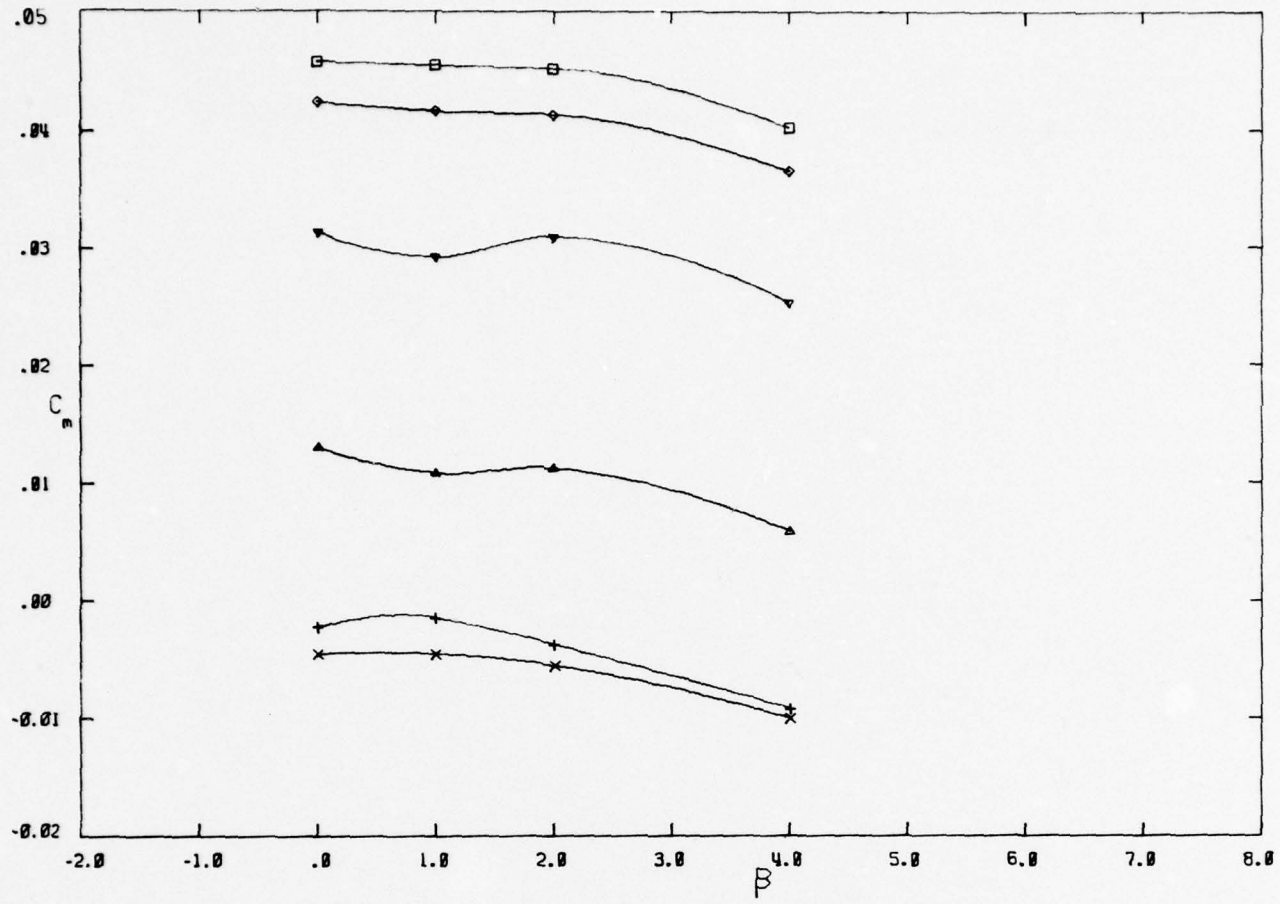


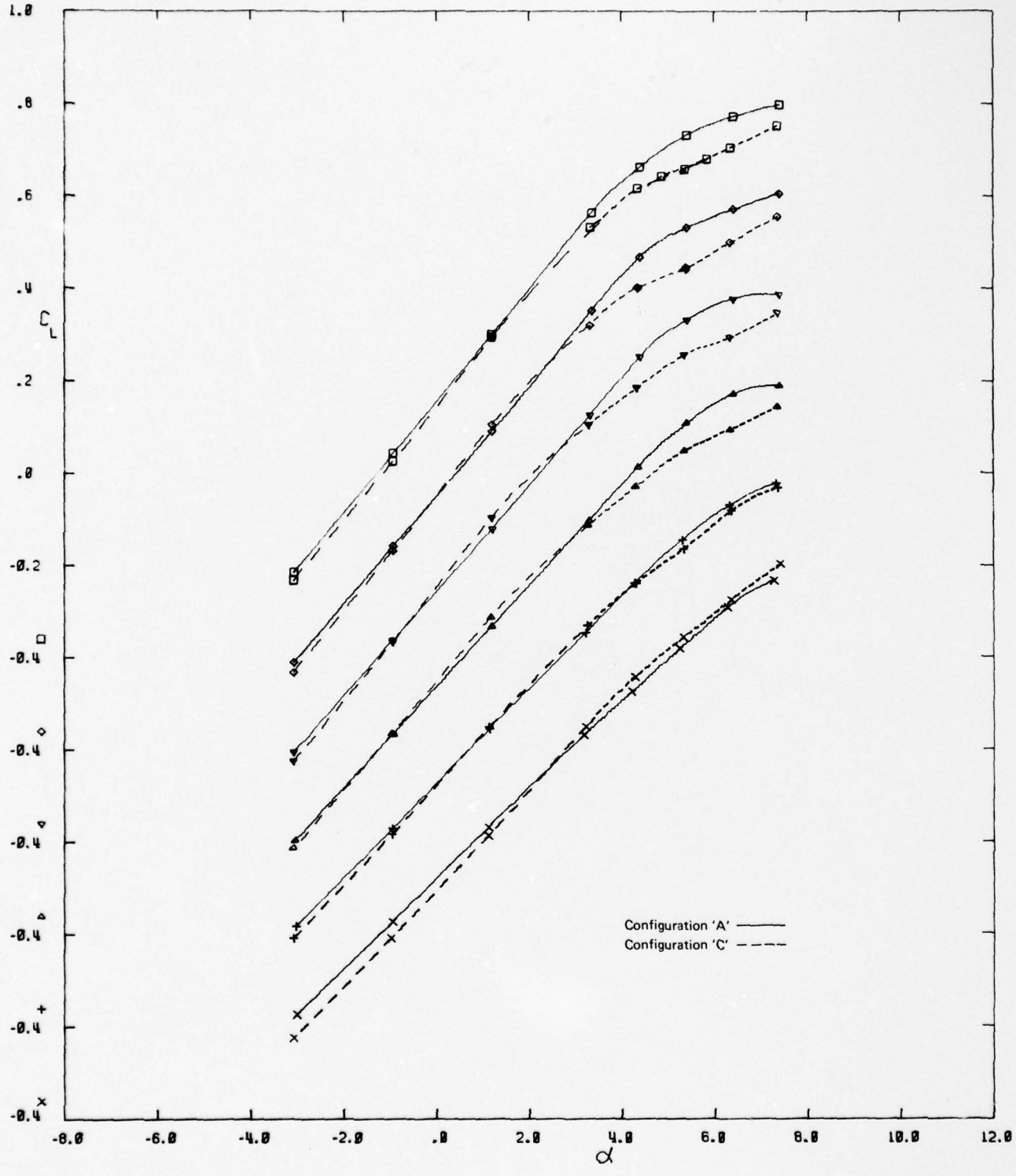
FIG. 22a VARIATION OF PITCHING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' - CLEAN AIRCRAFT



SYMBOL	M
×	.92
+	.90
△	.88
▽	.86
◇	.84
□	.82

REY = .450 *10^6

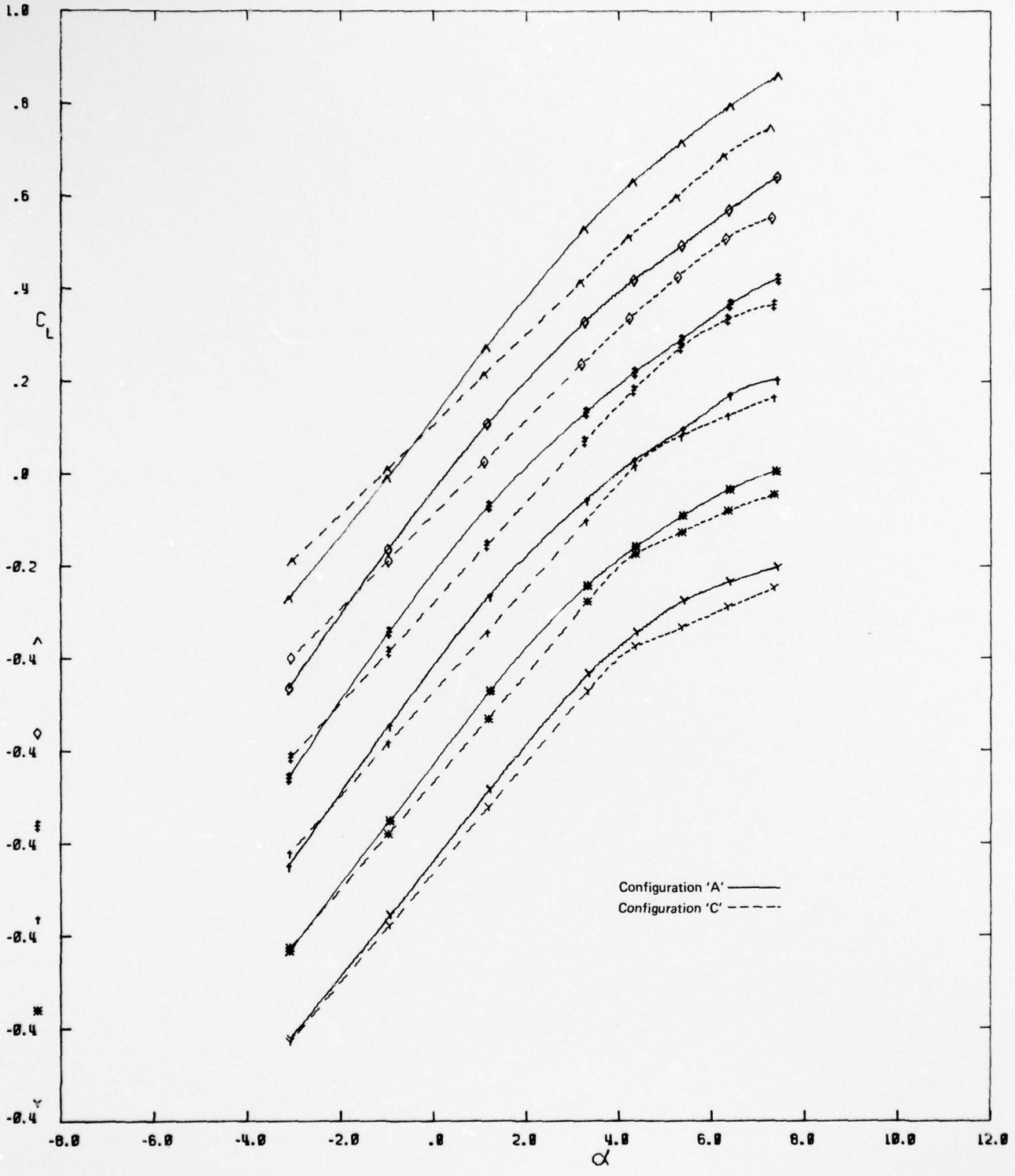
FIG. 22b VARIATION OF PITCHING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP CONFIGURATION 'A' – CLEAN AIRCRAFT



SYMBOL	M
×	.50
+	.60
△	.70
▽	.75
◇	.78
□	.80

REY = .442 *10⁶

FIG. 23a VARIATION OF LIFT COEFFICIENT WITH INCIDENCE
COMPARISON OF CONFIGURATIONS 'A' AND 'C'



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◇	.90
^	.92

REY = .442 *10^6

FIG 23b VARIATION OF LIFT COEFFICIENT WITH INCIDENCE
COMPARISON OF CONFIGURATIONS 'A' AND 'C'

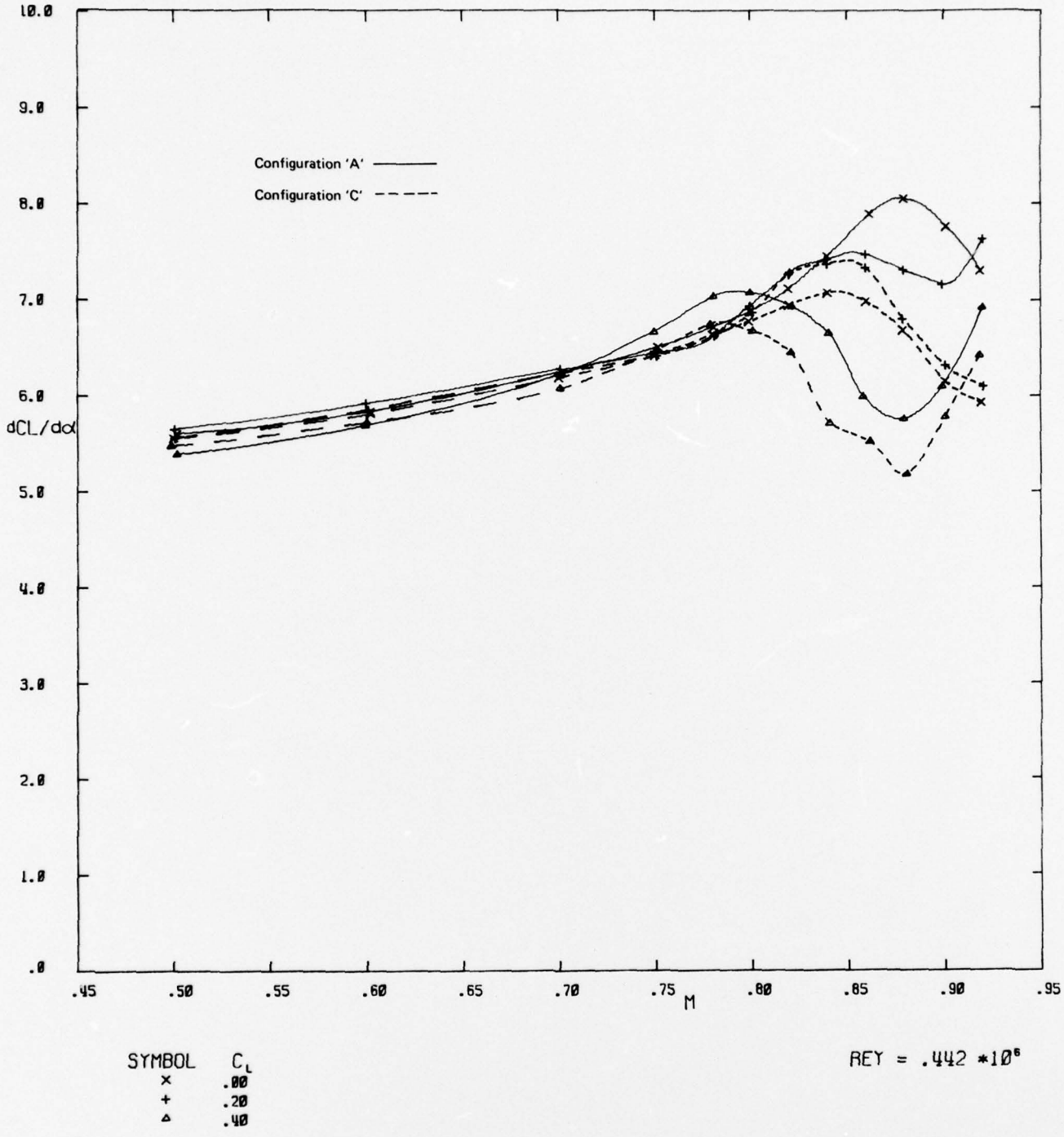


FIG. 24 VARIATION OF LIFT CURVE SLOPE WITH MACH NUMBER
COMPARISON OF CONFIGURATIONS 'A' AND 'C'

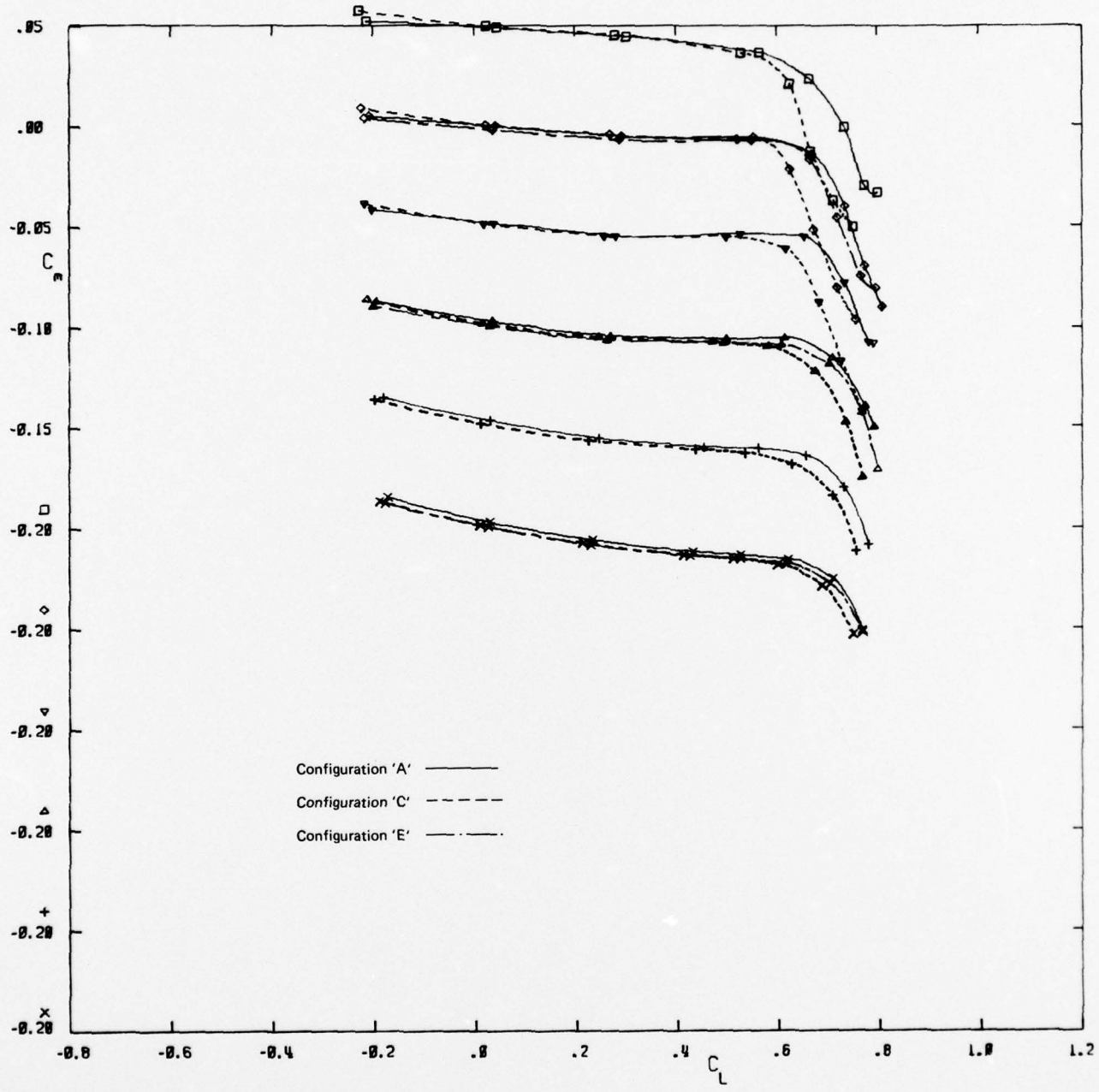
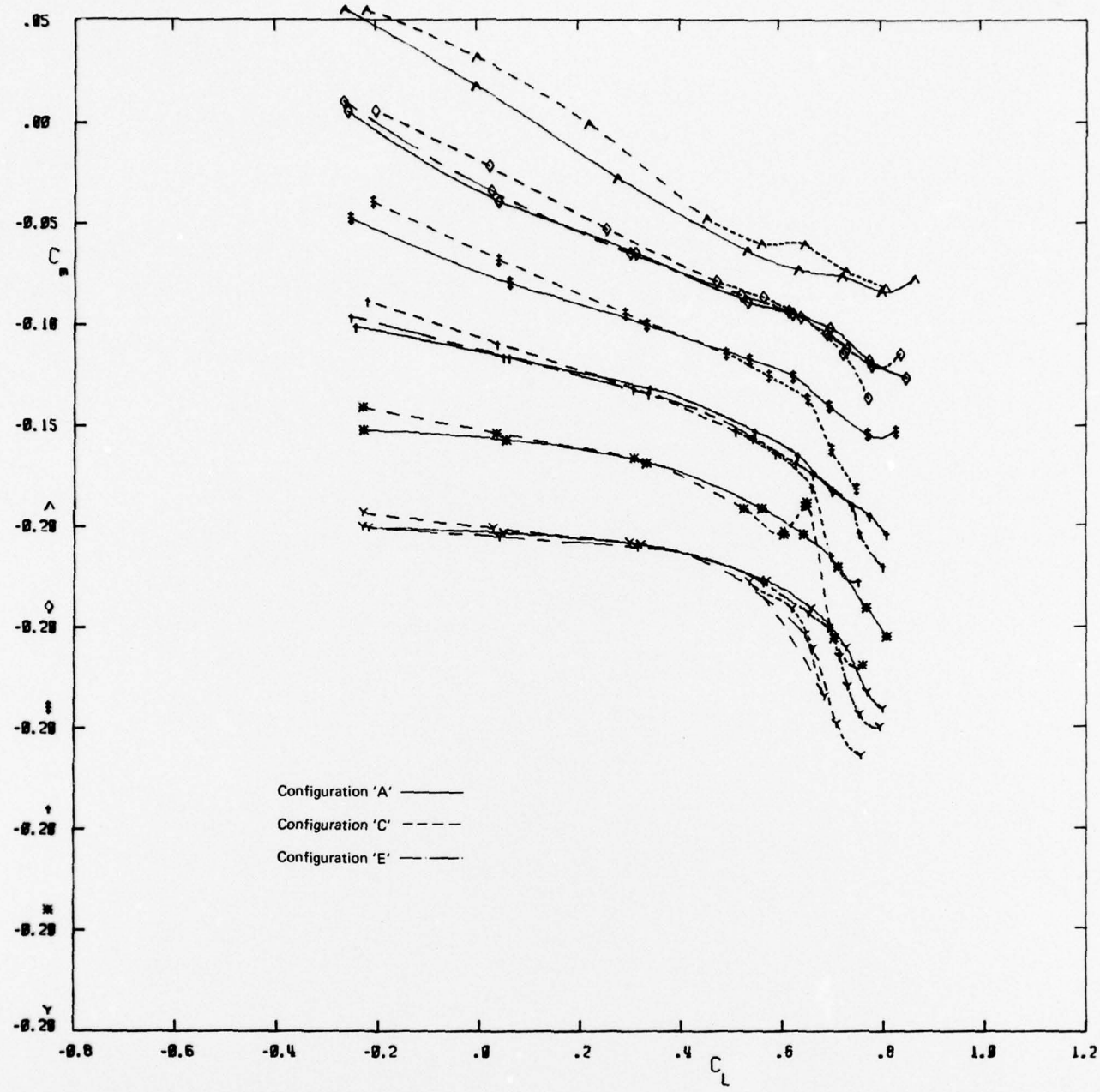


FIG. 25a VARIATION OF PITCHING MOMENT COEFFICIENT WITH LIFT COEFFICIENT COMPARISON OF CONFIGURATIONS 'A', 'C' AND 'E'



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .442 *10^6

FIG. 25b VARIATION OF PITCHING MOMENT COEFFICIENT WITH LIFT COEFFICIENT COMPARISON OF CONFIGURATIONS 'A', 'C' AND 'E'

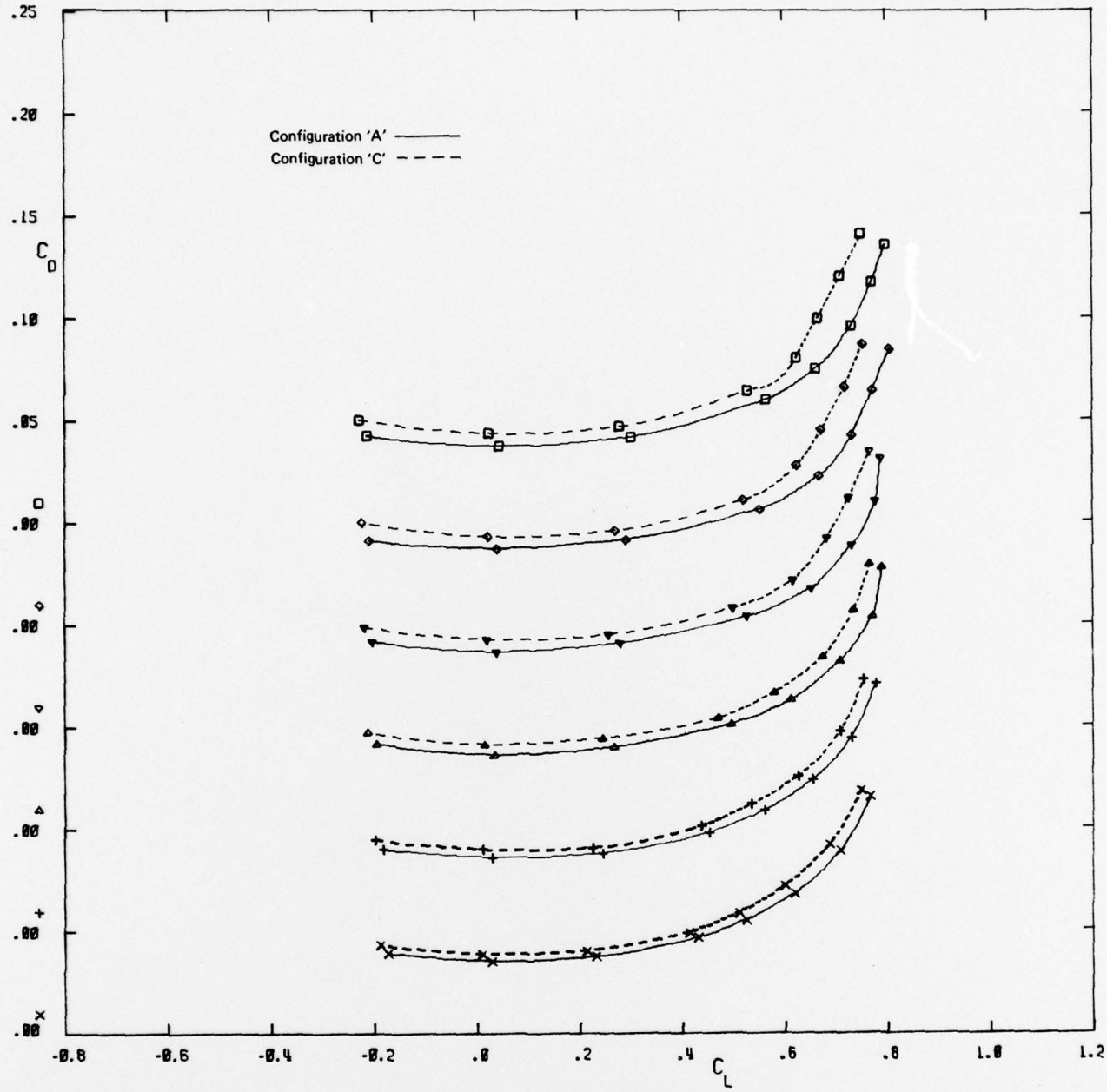
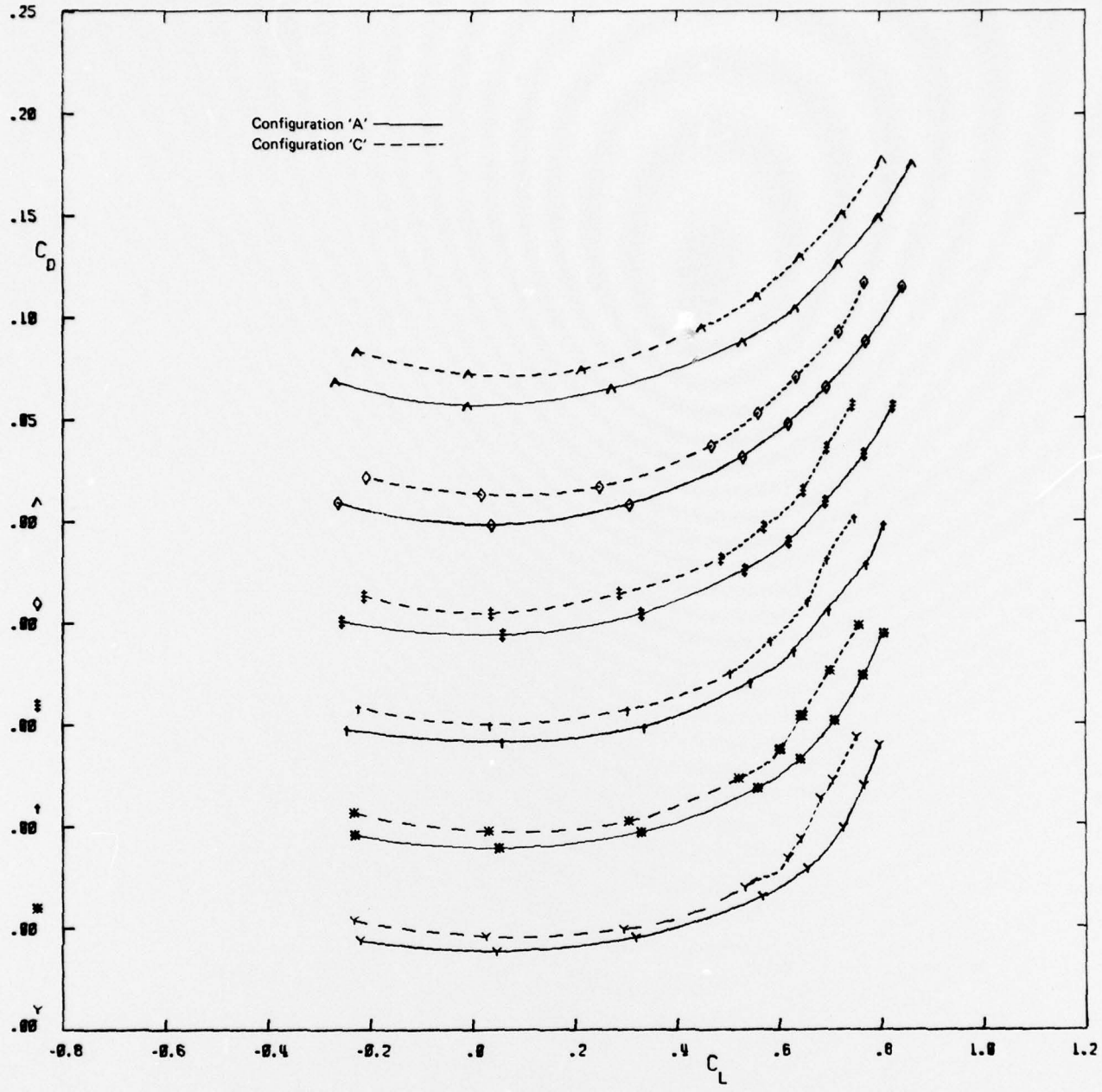


FIG. 26a VARIATION OF DRAG COEFFICIENT WITH LIFT COEFFICIENT
COMPARISON OF CONFIGURATIONS 'A' AND 'C'



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .442 *10⁶

FIG. 26b VARIATION OF DRAG COEFFICIENT WITH LIFT COEFFICIENT
COMPARISON OF CONFIGURATIONS 'A' AND 'C'

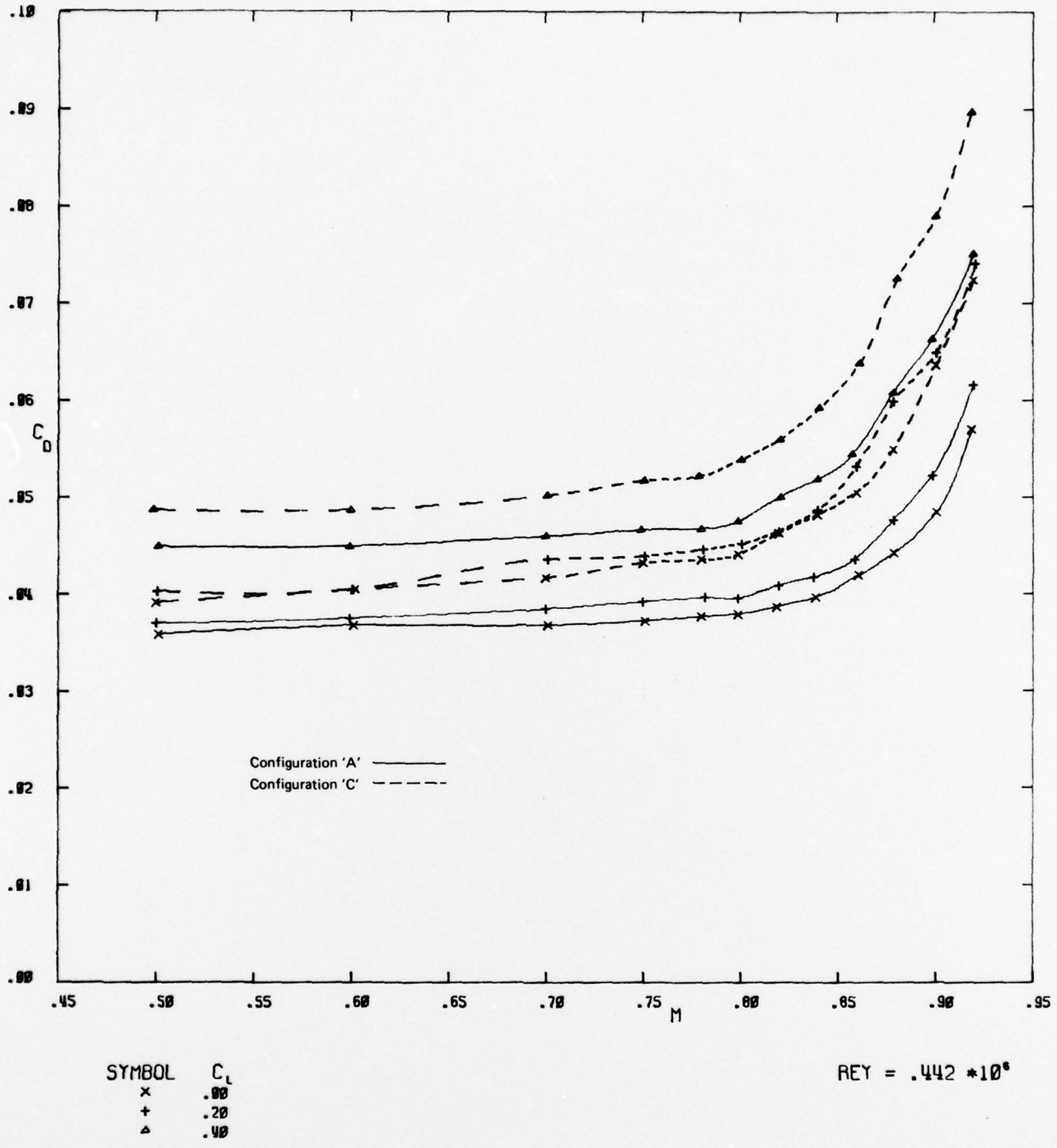


FIG. 27 VARIATION OF DRAG COEFFICIENT WITH MACH NUMBER
COMPARISON OF CONFIGURATIONS 'A' AND 'C'

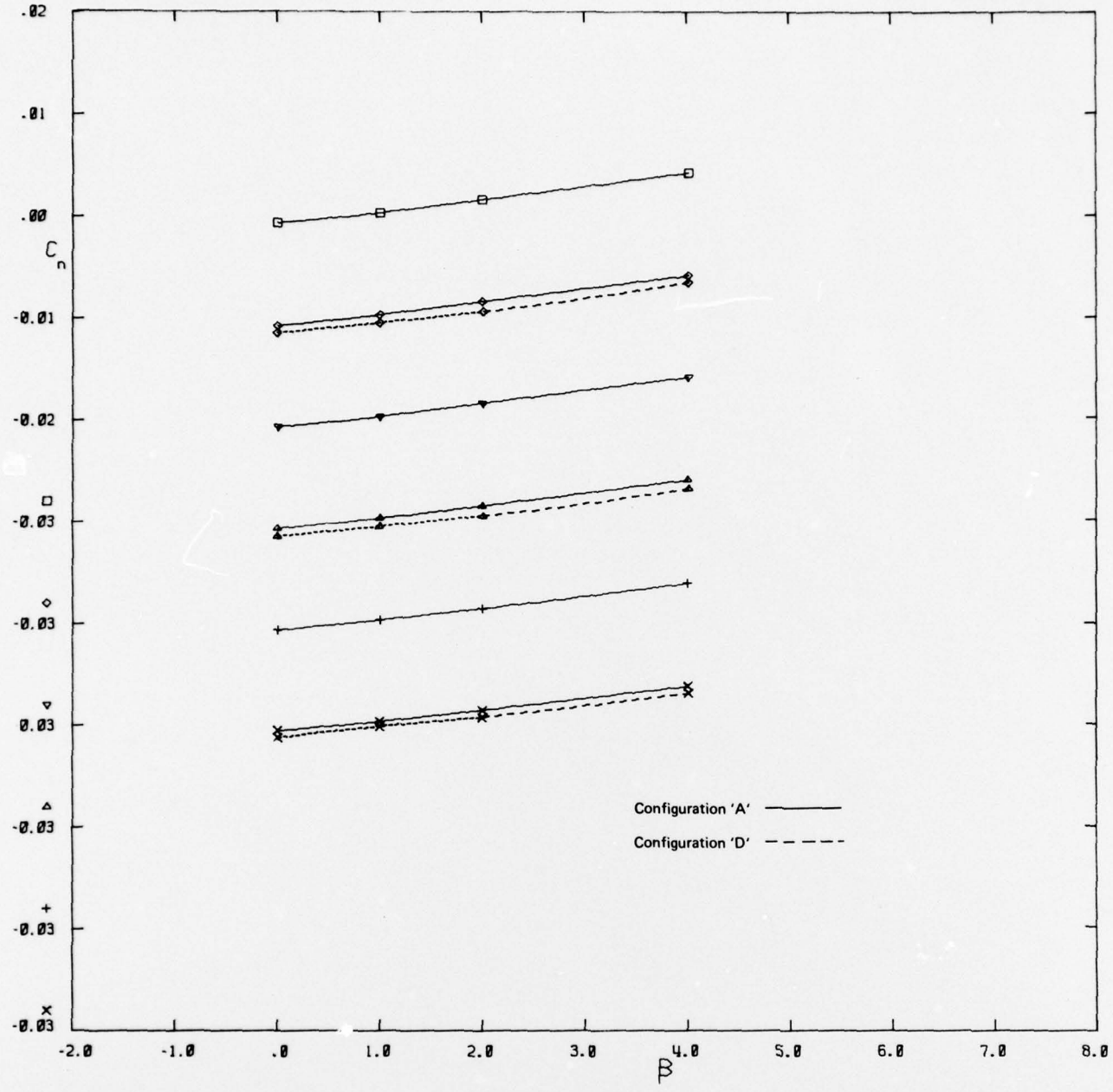


FIG. 28a VARIATION OF YAWING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON OF CONFIGURATIONS 'A' AND 'D'

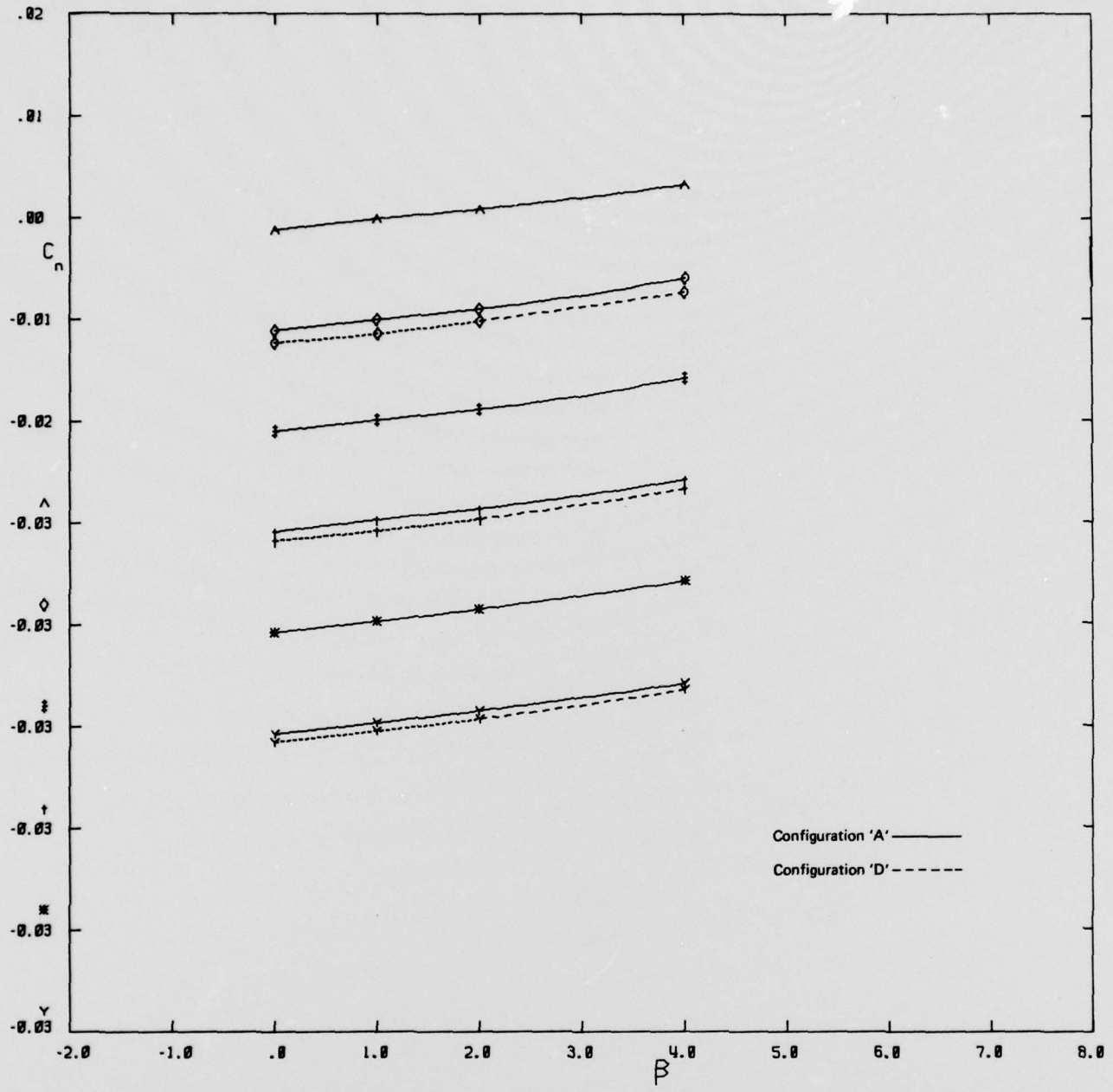


FIG. 28b VARIATION OF YAWING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON OF CONFIGURATIONS 'A' AND 'D'

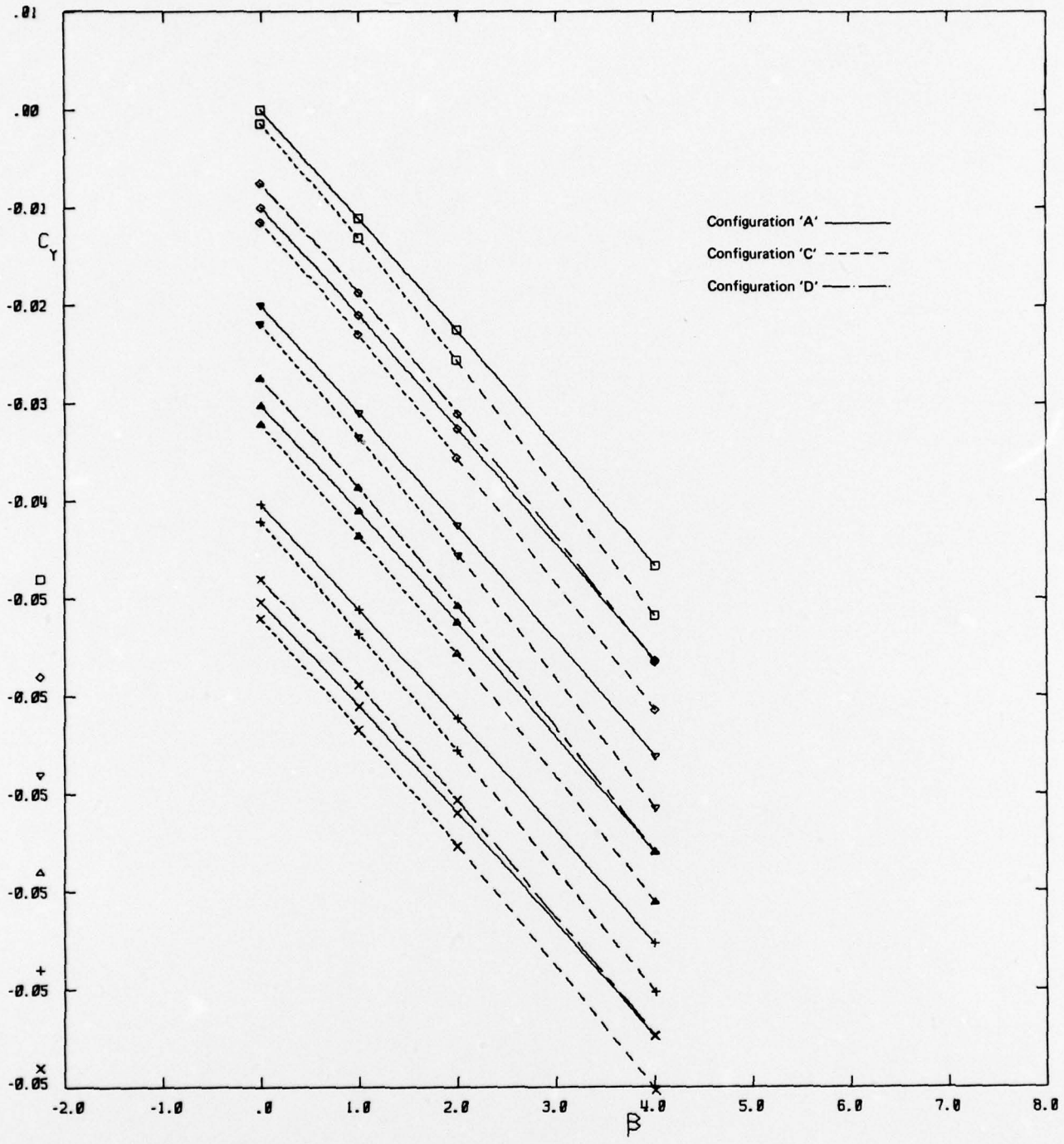
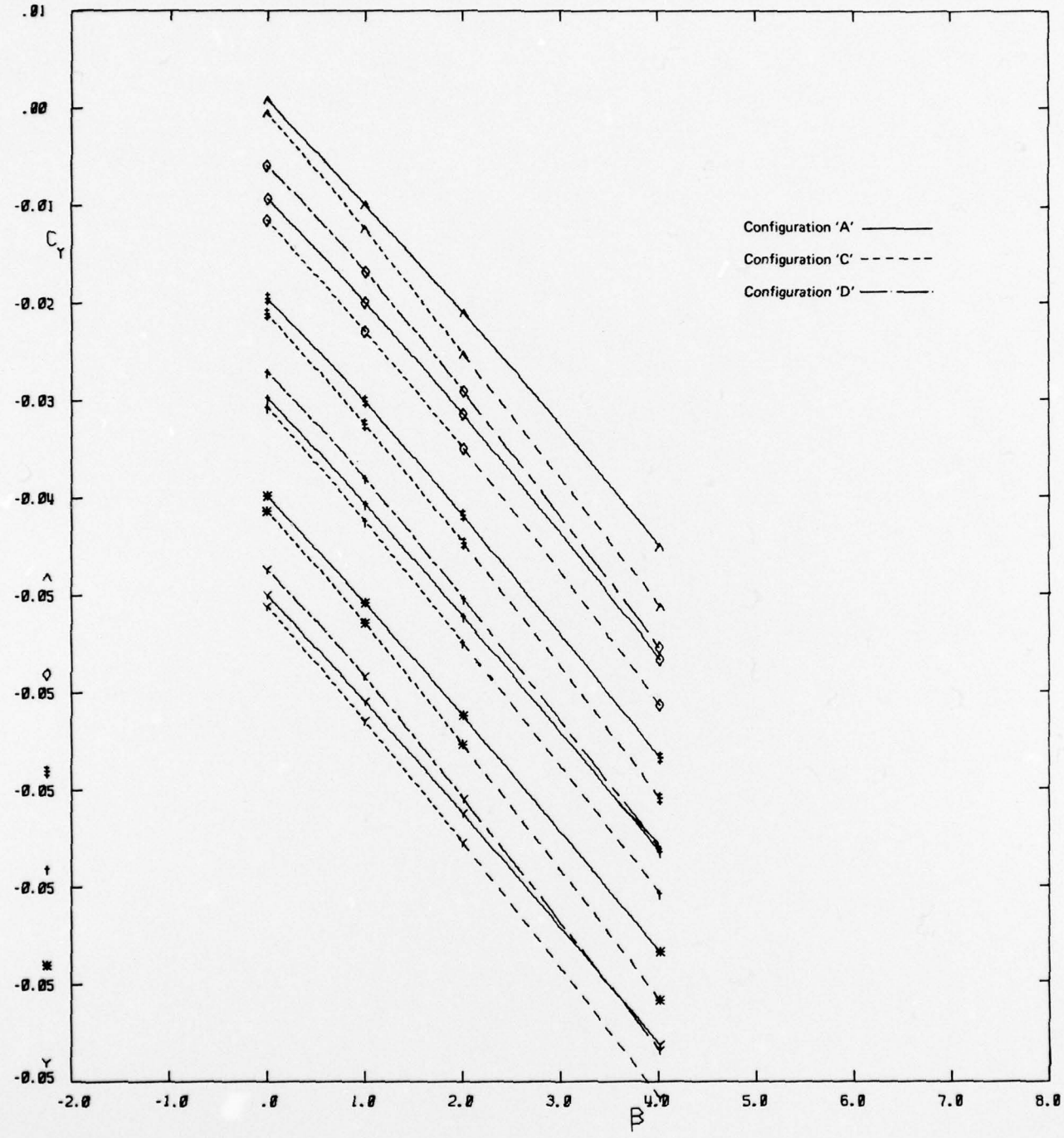


FIG. 29a VARIATION OF SIDE FORCE COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON OF CONFIGURATIONS 'A', 'C' AND 'D'



SYMBOL	M
Y	.82
✱	.84
†	.86
‡	.88
◊	.90
^	.92

REY = .450 *10^6

FIG. 29b VARIATION OF SIDE FORCE COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON ON CONFIGURATIONS 'A', 'C' AND 'D'

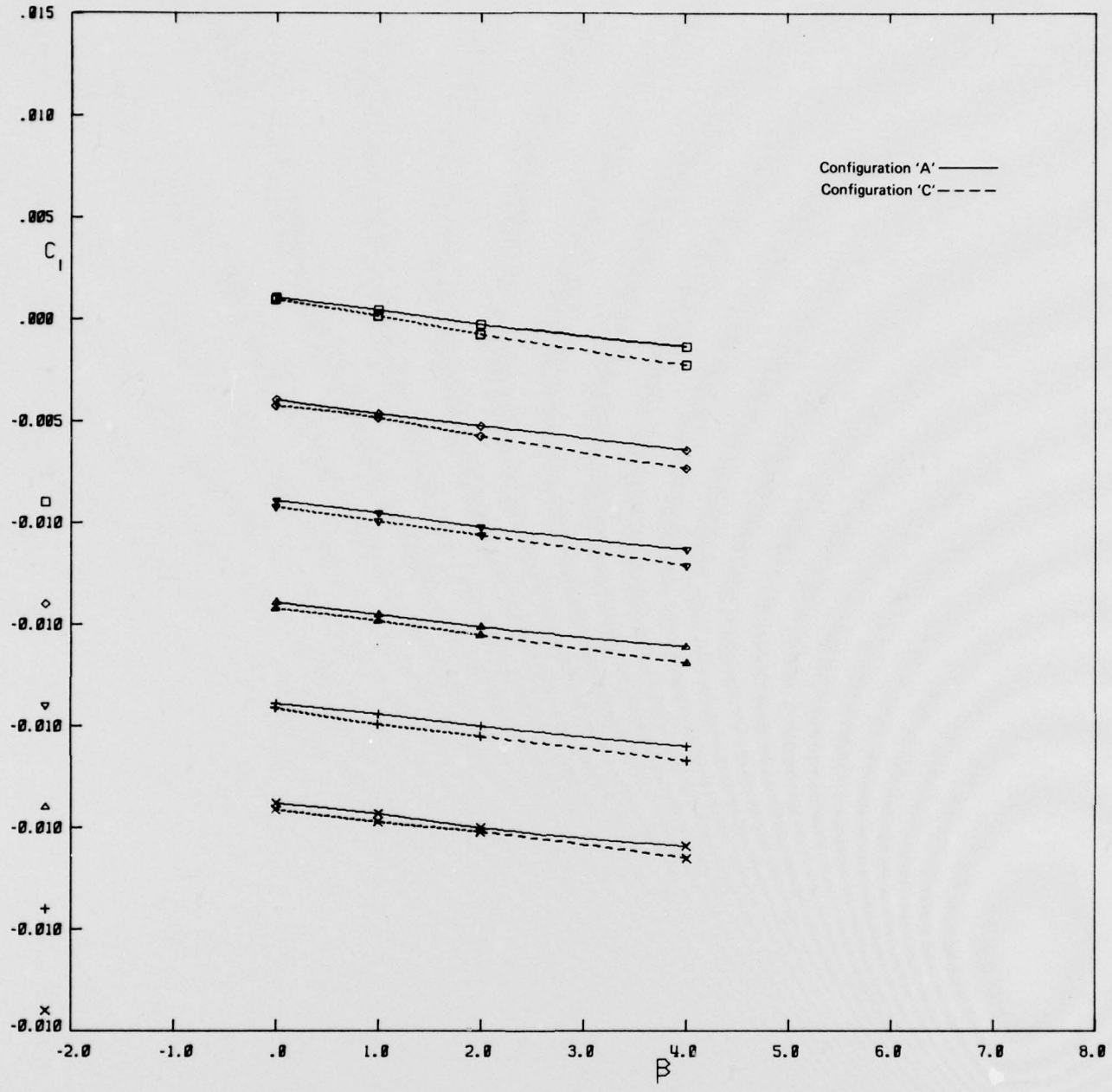
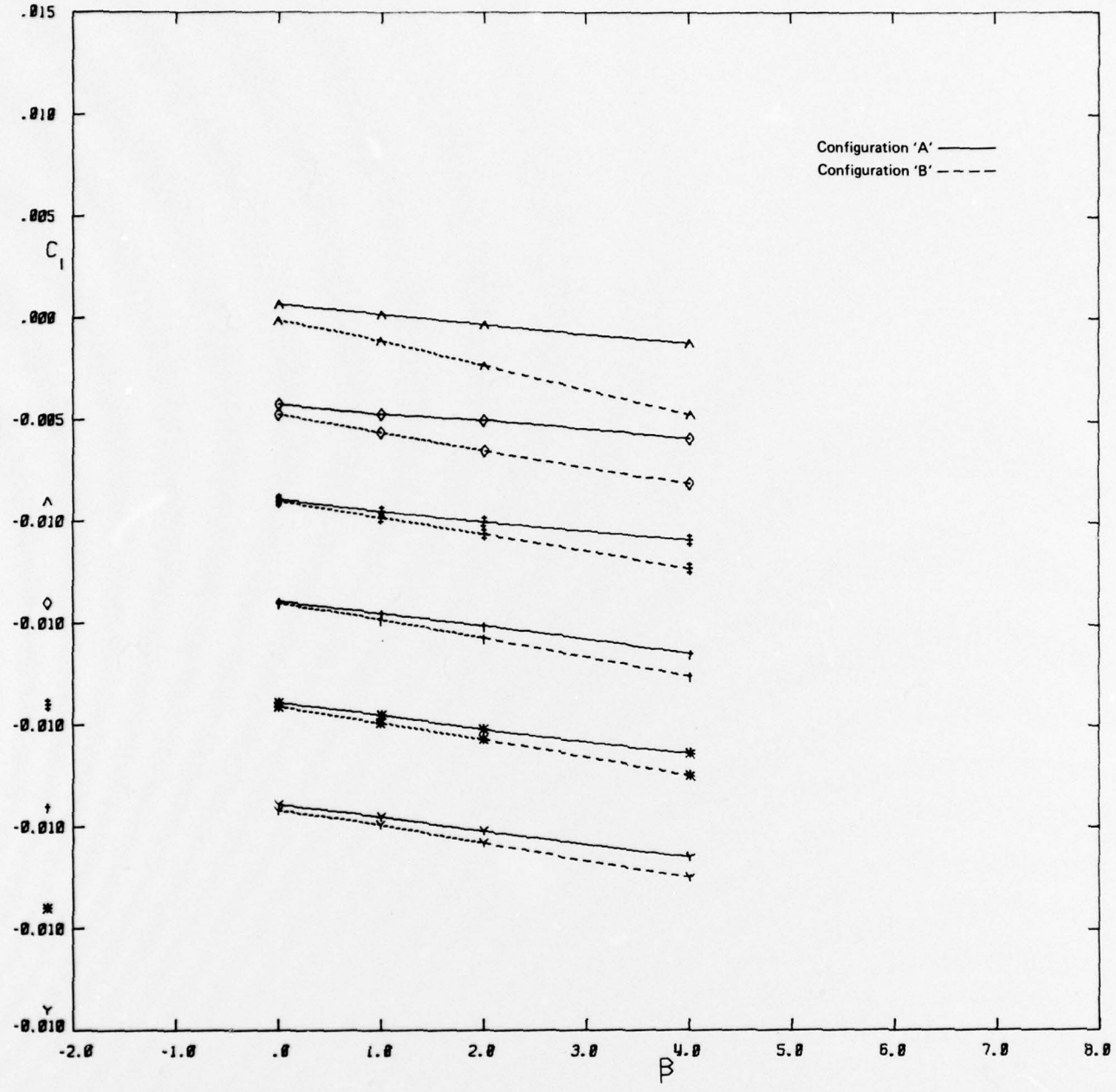


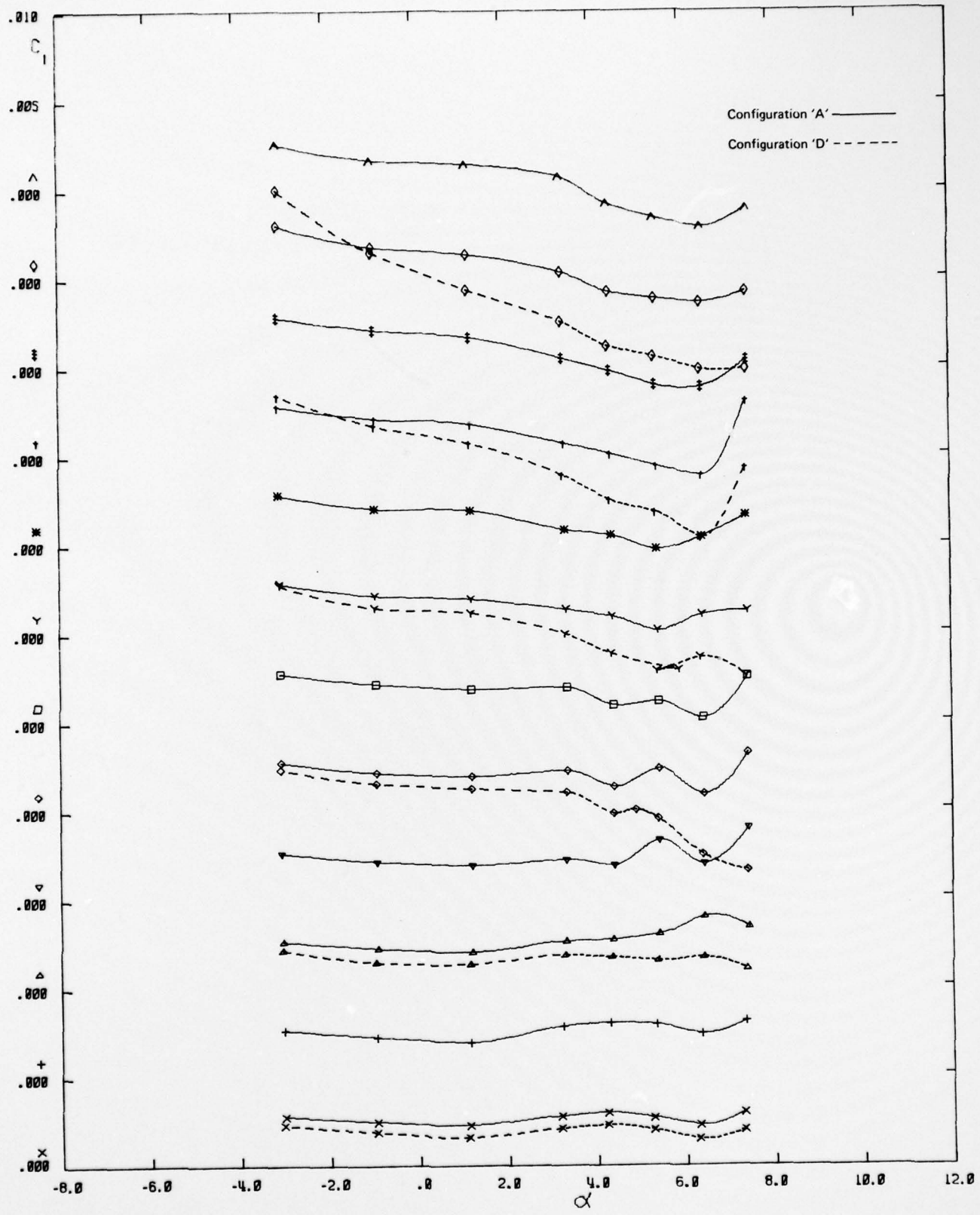
FIG. 30a VARIATION OF ROLLING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON OF CONFIGURATIONS 'A' AND 'C'



SYMBOL	M
Y	.82
*	.84
†	.86
‡	.88
◇	.90
^	.92

REY = .450 *10^6

FIG. 30b VARIATION OF ROLLING MOMENT COEFFICIENT WITH ANGLE OF SIDESLIP COMPARISON OF CONFIGURATIONS 'A' AND 'C'



SYMBOL	M	SYMBOL	M
×	.50	↑	.86
+	.60	‡	.88
△	.70	◇	.90
▽	.75	^	.92
◇	.78		
□	.80		
Y	.82		
✱	.84		

REY = .442 $*10^6$

FIG. 31 VARIATION OF ROLLING MOMENT COEFFICIENT WITH INCIDENCE COMPARISON OF CONFIGURATIONS 'A' AND 'D'

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